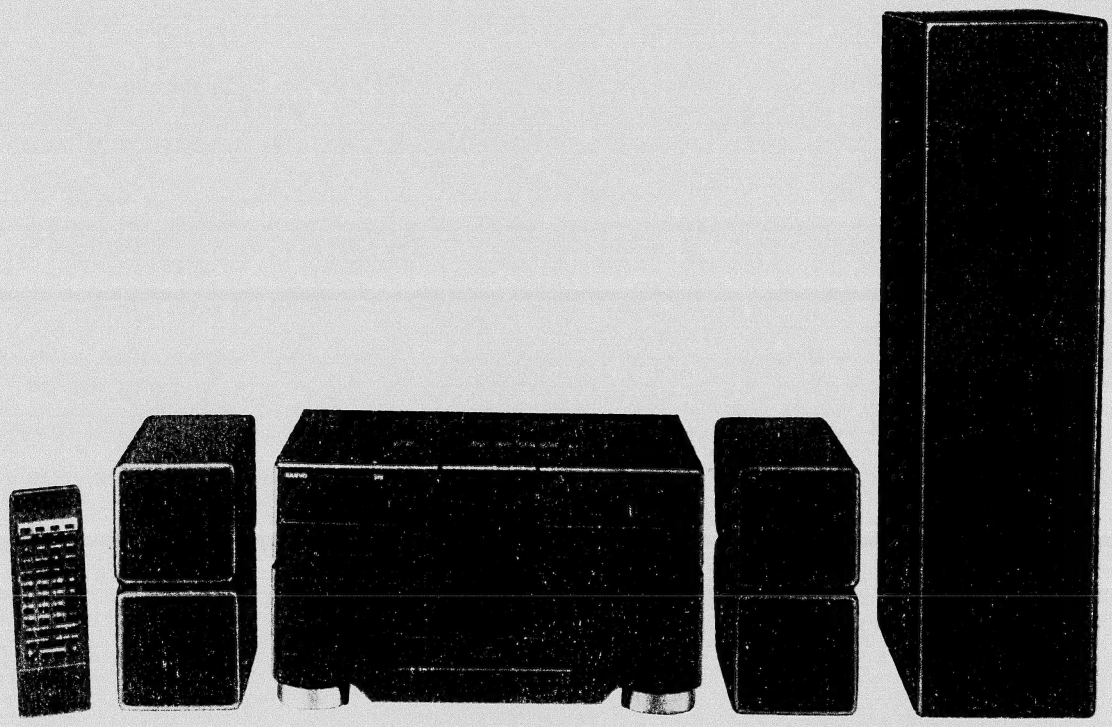
SANYO

Service Manual

Compact Disc Hi-Fi Stereo System

DC-SF5 (ITALY) (EUROPE) (SPAIN) (W.GERMANY)



Contents

PRODUCT CODE No.
129 315 01 (ITALY)
129 315 04 (EUROPE)
129 315 05 (SPAIN)
129 315 06 (W. GERMANY)

REFERENCE No. WM-580317

1. SPECIFICATIONS

Tuner
(FM)
Reception frequency:
87.5 to 108 MHz
Usable sensitivity:
2 μV (mono)
(AM)
Reception frequency:
526.5 to 1606.5KHz (ITALY)
522 to 1611 KHz (SPAIN/EUROPE/W. GERMANY)
(LW)
Reception frequency
148.5 to 283.5 KHz (ITALY)
144 to 290 KHz (SPAIN/EUROPE/W. GERMANY)

Amplifier
Usable maximum output power:
25W+25W+35W(10% THD)
Input sensitivity/input impedance:
PHONO: 2.5 mV/50 kohms
VIDEO: 180 mV/50 kohms
DAT: 180 mV/50 kohms
Tone controls:
MID:1 kHz +/- 6 dB
HIGH: 12 kHz +/- 6 dB
Loudness control (VOL: -30 dB):
100 Hz: +4 dB, 10 kHz: +4 dB

Cassette decks
Track system:
4-track, 2-channel stereo
Frequency response:
Metal tapes: 40 Hz to 16 kHz
Chrome tapes: 40 Hz to 15 kHz
Normal tapes: 40 Hz to 13 kHz
Signal-to-noise ratio:
58 dB (with Dolby NR ON)
Wow/flutter:
0.12% (WRMS)
Fast forward/rewind time:
Approx. 120 sec. (C-60)

CD player
Channels:
2-channel stereo, L/R in-phase output
Sampling frequency:
44.1 kHz
D/A conversion:
16-bit linear twin D/A converter
Pick-up:
Optical 3-beam semiconductor laser
Frequency response:
5 Hz to 20 kHz
Total harmonic distortion:
0.03% (1 kHz)
Signal-to-noise ratio:
90 dB
Wow/flutter:
Below measurable limits

General
Power requirements:
AC 220V, 50Hz
Power consumption:
100 W
Dimensions:
360(W) x 208(H) x 330(D) mm
Weight:
10 kg

Speaker systems
Overall frequency response:
40 Hz to 20 kHz
(L/R speakers)
Type:
Airtight full-range dual speakers
Unit used:
8 cm cone type x 2 (integrated)
Maximum power-handling capacity:
40 W (peak)
Nominal impedance:
8 ohms
Dimensions:
102(W) x 208(H) x 250(D) mm
Weight:
2.1 kg (per speaker)
(Dynamic bass speaker)
Type:
Bass reflex
Unit used:
12 cm cone type
Maximum power-handling capacity:
80 W (peak)
Nominal impedance:
4 ohms
Dimensions:
144(W) x 570(H) x 320(D) mm
Weight:
5.9 kg

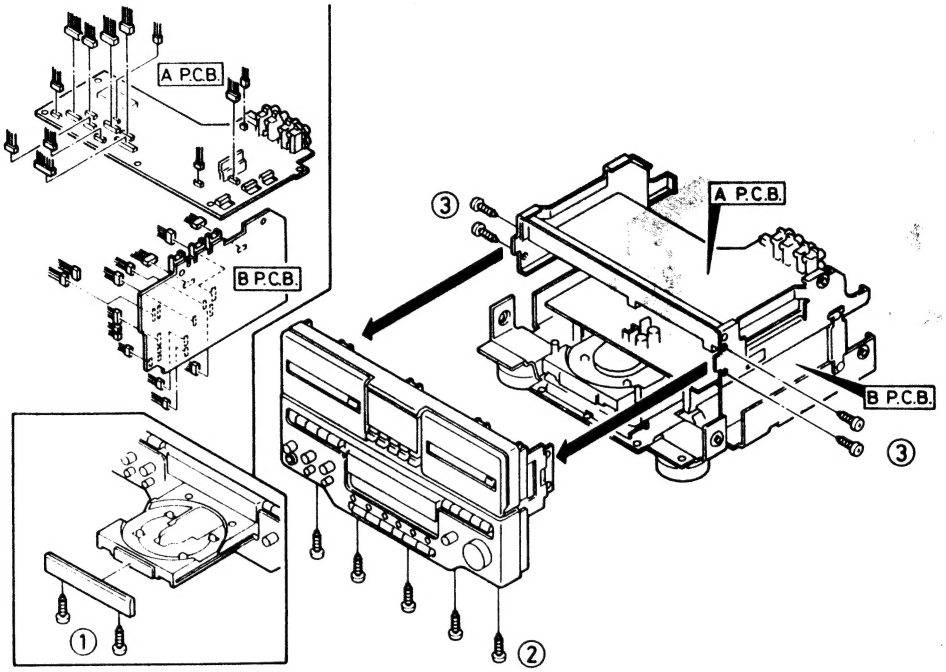
Specifications subject to change without notice.

2. HOW TO DISASSEMBLE THE SET

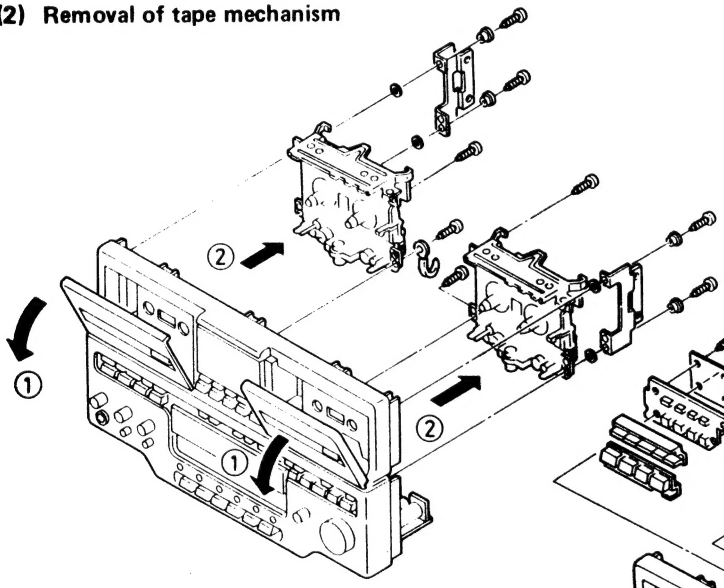
- Remove the compact disc if there should be one on the disc tray.
- Switch the power OFF, and unplug the AC power cord from an AC outlet.
- Disassemble in the numerical sequence.

(1) Removal of front panel

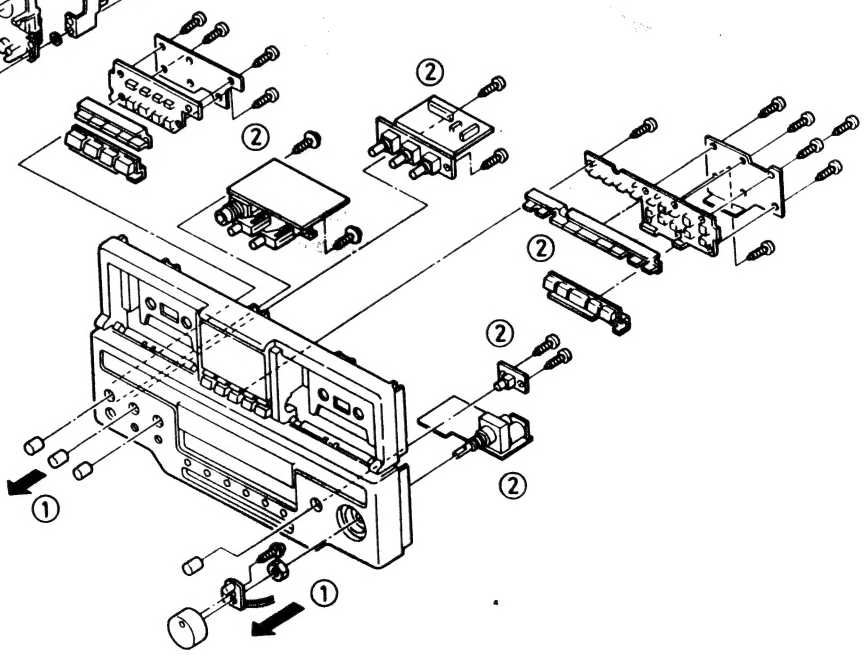
When reassemble the PCB, consult a wiring connection diagram.



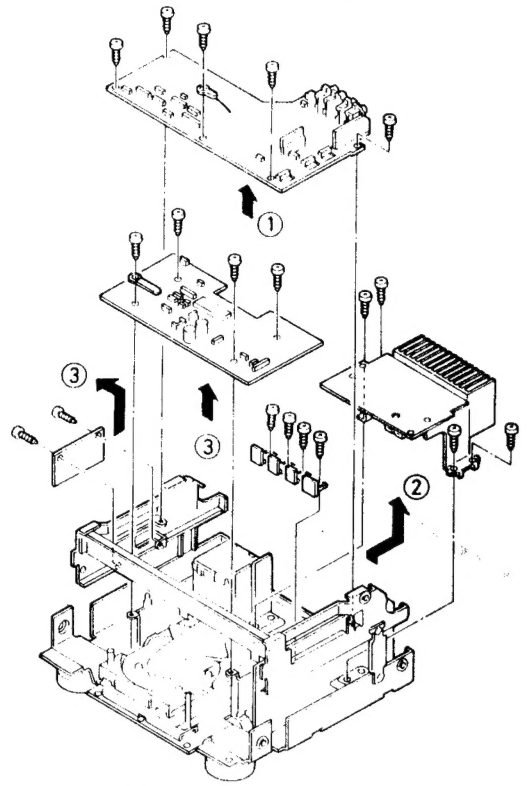
(2) Removal of tape mechanism



(3) Removal of PCB of front panel part

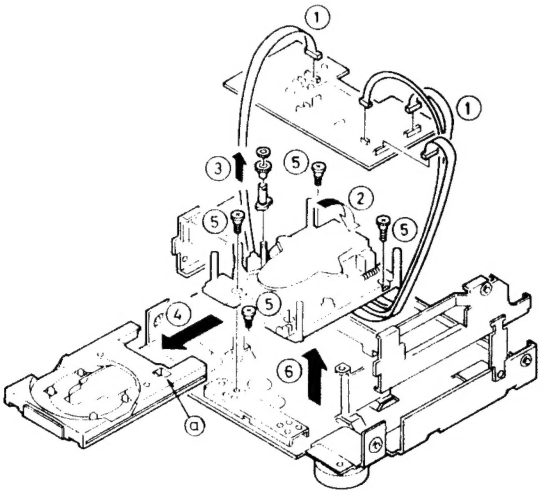


(4) Removal of PCB of bottom cabinet



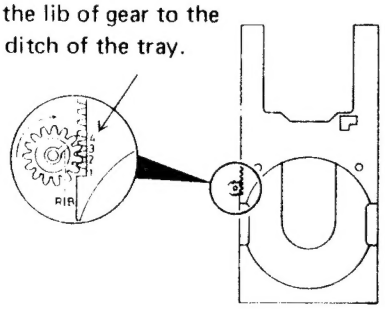
(5) Removal of CD mechanism and disc tray

- Pull out the disk tray, as push (a) hook.



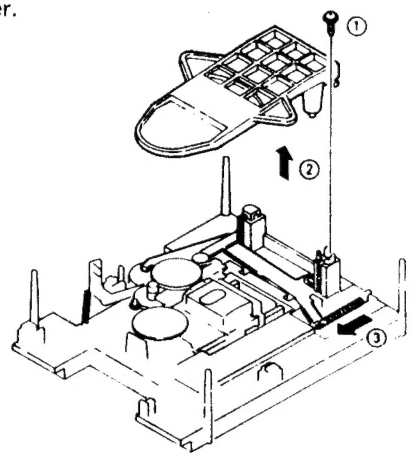
- When reinserting the disc tray, meet the tip of the disc tray with the boss of the gear as shown in figure.

Note: Match the lib of gear to the fourth ditch of the tray.

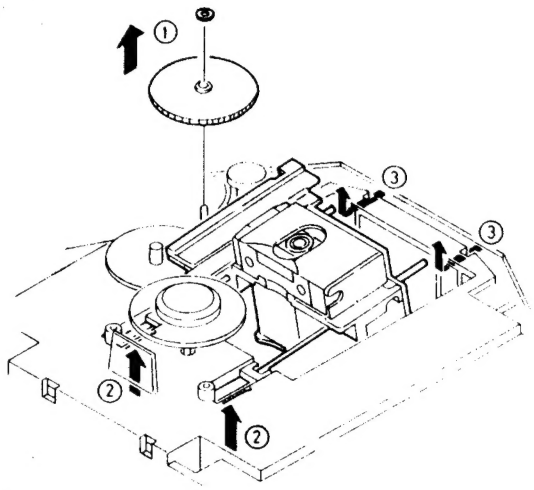


(6) Replacement the pick-up

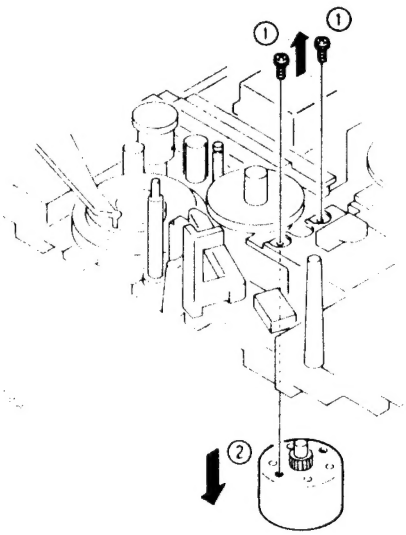
a. Removal of disk chuck lever
Pull the lever to front side ③ when reassemble disc chuck lever.



b. Removal of pick-up
Push the shaft ③ to front side as to push up the lib ② and be free the shaft.



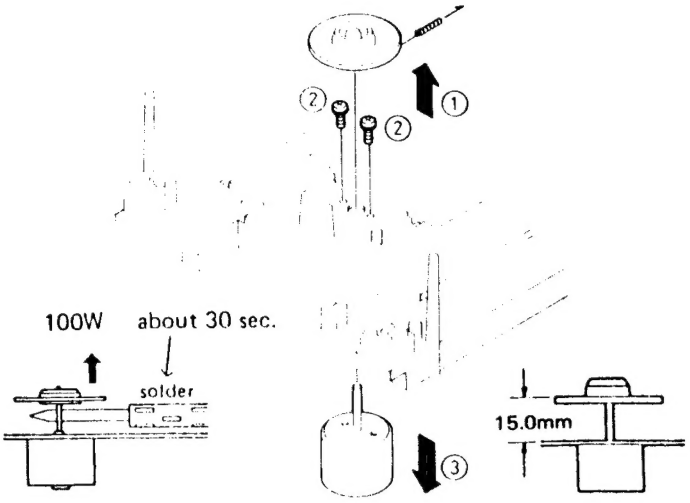
(7) Removal of the sled (loading) motor



(8) Removal of the spindle motor

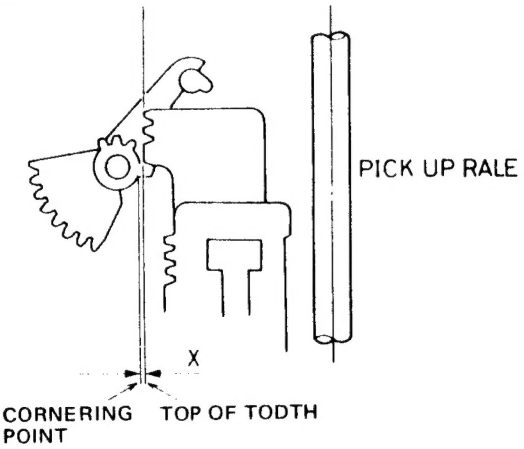
Insert the solder between turn table and base mechanism chassis when dissolve the adhesive cement. And then, add to heat with 100W solder about 30 sec.

Note: When reassemble the turn table, choise the metal turn table, even if repair the spindle motor, as above it.



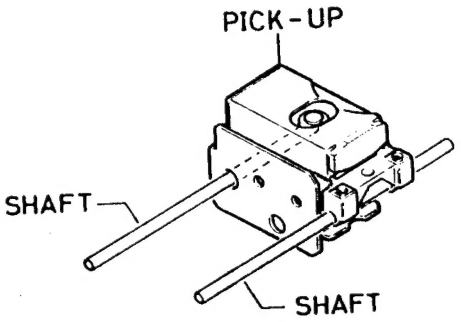
(9) Pick-up transported rack gear alignment

Should be X = 0 ~ 0.1mm

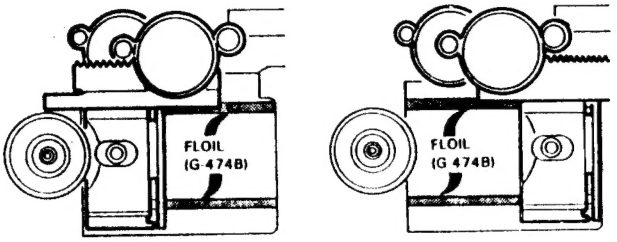


(10) Pick-up replacement

Disassembly the pick-up as follows.



a. When replacing the pick-up, carefully wipe away the grease from the shafts on which the pick-up is mounted.
b. Replace the pick-up.
c. Move the pick-up to the position at the left side, and then apply a coating of floil (G-474B) to the two shafts.
d. Move the pick-up to the right side and apply floil to the remaining parts of the shafts.



3. ADJUSTMENT (TUNER)

NOTE: 1. Power source voltage is DC 12V.
2. Use a screw driver with plastic grip for all adjustment.
3. Signal input must be kept as low as possible to avoid overload.
4. Use an output meter of the highest possible sensitivity.
5. Adjust the intermediate frequency of AM and FM to the frequency of ceramic filter.

(1) FM Band

Antenna: 75 ohm open SG direct, Standard modulation frequency: 1kHz, Deviation: 75 kHz (Mono)
Output: −72dB

ITEMS		FREQUENCY INDICATED POSITION	INPUT CONDITIONS		OUTPUT CONDITIONS		ADJUSTING PARTS	STANDARDS
			MEASURING INSTRUMENTS	CONNECTIONS	MEASURING INSTRUMENTS	CONNECTIONS		
Clock (Time Error)				**	Frequency counter	TP401 (H) TP402 (E)	CT401	1.048576 MHz ± 2 Hz
Tuning Coverage	Low	87.5MHz	—	—	Digital Voltmeter	TP101 (H) TP102 (E)	Confirm	1.3V
	High	108.0 MHz					L104	8.0 ± 0.05V
Tracking	Low	90.0 MHz	FM-SG (10dB)	FM ANT Terminal	VTVM Oscilloscope	TP302 (L) TP303 (R) TP304 (E)	L102 L103	Max.
	High	106.0 MHz					CT101	
IF S-curve (Distortion factor)		98.0 MHz	FM-SG (66dB)	FM ANT Terminal	Digital Voltmeter	TP201 (H) TP202 (E)	T202	0 ± 0.05V
S.D. (Station Detector)		98.0 MHz	FM-SG (22dB)	FM ANT Terminal	Digital Voltmeter	TP203 (H) TP204 (E)	SVR201	Less than 4V
VCO (19 kHz)		98.0 MHz	FM-SG (72dB)	—	Counter	TP301 (H) TP304 (E)	SVR301	19kHz±50Hz
Separation		98.0 MHz	FM-SG (72dB) Stereo Modulator*	FM ANT Terminal	VTVM Oscilloscope	Tuner out (L or R)	SVR302	L/R-ratio Max.
Distortion		98.0 MHz	FM-SG STEREO MODULATOR (L only or R only) 66dB	FM ANT	Distortion meter	Tuner out (L or R)	T201	Min.

* Stereo modulator: Deviation Main (L + R) . . . ±40 kHz
Pilot (19kHz) . . . 6.75 kHz

** Connect temporaly to TP407 and TP404 in the Power off mode.

(2) MW Band

Antenna: IRE Loop antenna, Standard modulation: 1 kHz 30%

ITEMS		FREQUENCY INDICATED POSITION	INPUT CONDITIONS		OUTPUT CONDITIONS		ADJUSTING PARTS	STANDARDS
			MEASURING INSTRUMENTS	CONNECTIONS	MEASURING INSTRUMENTS	CONNECTIONS		
Tuning Coverage	Low	522 kHz	—	—	Digital Voltmeter	TP101 (H) TP102 (E)	L153	1.3 ± 0.02V
	High	1611 kHz					CT153	8.0 ± 0.05V
Tracking	Low	603 kHz	AM-SG (80dB)	Loop ANT.	VTVM Oscilloscope	TP302 (L) TP303 (R) TP304 (E)	L151	Max.
	High	1404 kHz					CT151	
S.D. (Station Detector)		999 kHz	AM-SG (85 dB)	Loop ANT.	Digital Voltmeter	TP203 (H) TP204 (E)	SVR202	Less than 4V

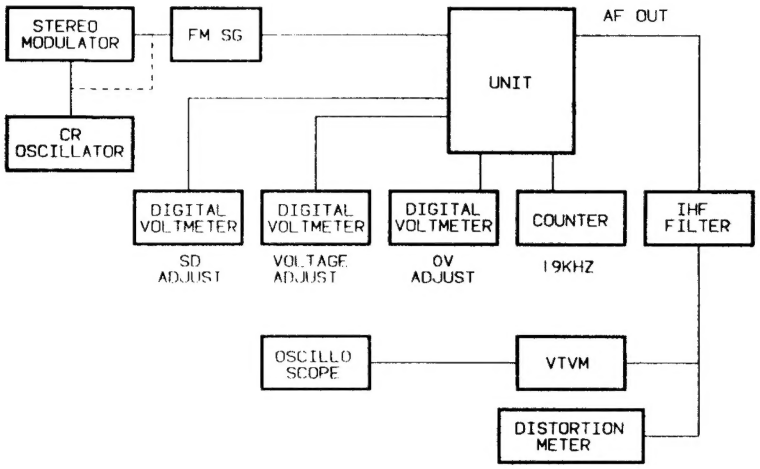
(3) LW Band

Antenna: IRE Loop antenna, Standard modulation: 400 Hz 30%

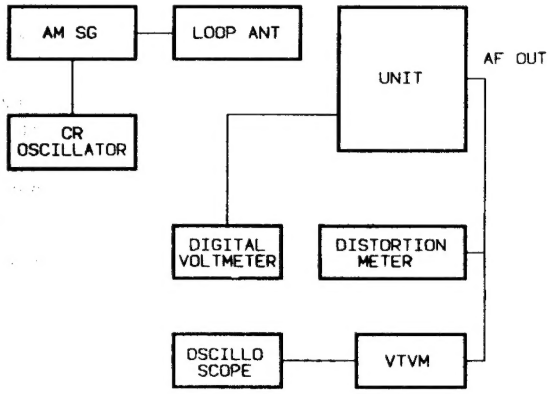
ITEMS		FREQUENCY INDICATED POSITION	INPUT CONDITIONS		OUTPUT CONDITIONS		ADJUSTING PARTS	STANDARDS
			MEASURING INSTRUMENTS	CONNECTIONS	MEASURING INSTRUMENTS	CONNECTIONS		
Tuning Coverage	Low	144 kHz	—	—	Digital Voltmeter	TP101 (H) TP102 (E)	L154	1.6 ± 0.03V
	High	290 kHz					CT154	7.0 ± 0.05V
Tracking	Low	162 kHz	AM-SG (84dB)	Loop ANT.	VTVM Oscilloscope	TP302 (L) TP303 (R) TP304 (E)	L152	Max.
	High	279 kHz					CT152	

ADJUSTMENT CONNECTION

FM ADJUSTMENT CONNECTIONS

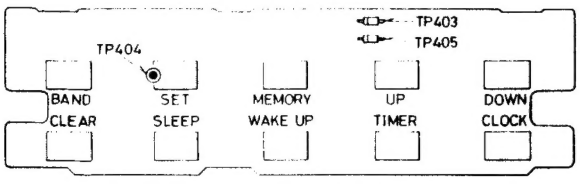


AM/LW ADJUSTMENT CONNECTIONS

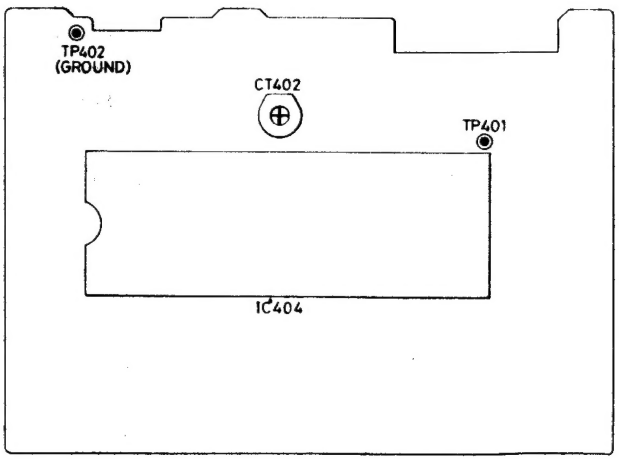


PARTS LOCATION (TUNER)

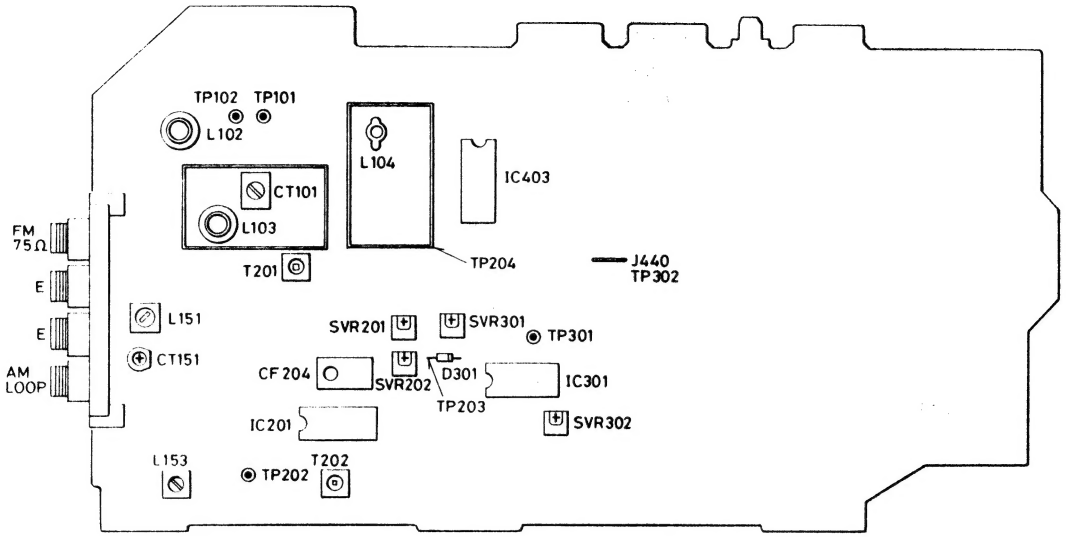
TUNER SWITCH PCB



FL DISPLAY TUNER PCB



TUNER/PRE AMP PCB



4. LASER BEAM SAFETY PRECAUTIONS

If the disk chuck lever is removed, the pick-up is exposed. Do not look at the pick-up with the power switch ON.

Do not look directly at the laser beam coming from the pick-up or allow it to strike against your fingers, skin, etc.

Do not apply power if there is a broken part in the laser output section of the pick-up.

Structural Safety Interlock

This model has a disc chuck lever and top lid. This disc chuck lever and top lid prevent to expose the laser beam for users.

5. HANDLING THE PICK-UP

1. Shipping and storage cautions

a. The pick-up must be stored in a conductive bag until immediately prior to its use.

b. Do not drop it or subject it to impacts.

2. Repair cautions

a. When handling the pick-up, be careful not to give it undue force or shock by your hands. Otherwise the pick-up may malfunction or the PCB may be cracked.

b. The pick-up which has been minutely adjusted before shipment as one part. Never touch and move the adjusting points and setscrews of the pick-up unless otherwise described in the item of adjustment to avoid damage.

c. A strong magnet is used in the pick-up.
Do not bring a magnet or other magnetized object near to it.

d. Cleaning the lens

* If dust gets on the lens, clean it away by using an air brush such as used for a camera lens.
* The lens is held in place by a spring.
If the center of the lens is dirty, carefully clean it using cotton swab moistened with **isopropylalcohol.** Since special coating is made on the surface of the lens which is made of plastics, do not use other kind of alcohol and cleaning fluid to prevent damage to the lens. Also, be carefull not to bend the lens spring when cleaning.

6. BEFORE REPAIRING THE CD PLAYER

1. Preparations

a. Many ICs, LSI and the pick-up (laser diode) are used in the compact disc player. These components are sensitive to static electricity, and might be damaged by static electricity or high voltage, so particular care should be taken regarding this point.

b. Many precision components and the lens are used in the pick-up.
Never attempt to make repairs, or to store parts, where the temperature or humidity is high, where magnetism is strong, or where there is much dust.

2. Notes regarding repairs

a. Be sure to first disconnect the power plug before attempting to replace any component.

b. All tools, instruments, etc., used for measuring must be grounded.
Grounding can be accomplished by using a conductive metal sheet on the work bench.

c. To prevent AV leakage of the soldering iron, ground its metal part.

d. Repair personnel must be grounded.

7. ADJUSTMENT (CD)

A. CD Mechanism Block (adjust or pressure against ratchet gear)

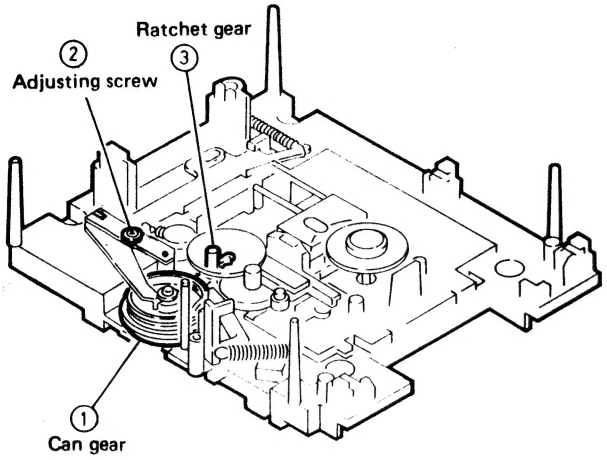


Fig-1

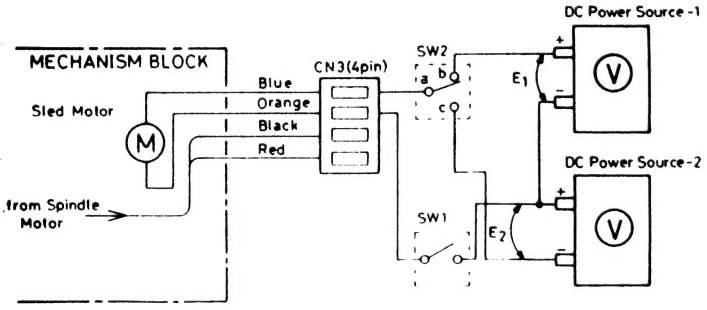


Fig-2

1. Connect the Mechanism to the instrument (DC Power Source & SW) as shown in figure 1.
2. With E1 = 5.0 ± 0.05V, operate SW2 to close contacts a-b. innermost position, initiate the mechanism open operation so that the cam gear stops at the open end position.
3. With voltage applied as described in (2), loosen the adjustment screw ② and operate the ratchet.
4. Tighten the adjustment screw until the operation of the ratchet gear ① stops.
5. Then, with E2 = 4.2V, operate SW2 to close contacts a-c. Switch off SW1 when the chucking lever starts to move.
6. With E1 = 4.6 ± 0.05V, operate SW2 to close contacts a-b, switch on SW1, and check to be sure that the ratchet does not operate even if the cam gear is at the open end position.
7. Operate SW2 to close contacts a-c, and switch off SW1 if the chucking lever begins to move.
8. With E1 = 5.3 ± 0.05V, operate SW2 to close contacts a-b, and switch on SW1. Check to be sure that the ratchet operates when the cam gear reaches the open end position.
9. Use Cemedine #575 to secure the space between the outer circumference of the adjustment nut and the spring plate.

o The starting voltage of ratchet operating must be between 4.6V and 5.5V.

If the adjustment described above is difficult to make, repair as described below.

Case 1: The adjustment screw is tightened almost for the adjustment (4), but the check in (6) in NG.

Countermeasure

The problem may be that the play of the vertical two-step ratchet gear is excessive, so add a 0.13t polyslider washer to the 0.25t polyslider washer located beneath the ratchet gear. As a confirmation, other than the adjustment described previously, the pick-up sending current must be within the allowable range.

Pick-up sending current: 8.0 mA ~ 20 mA

Case 2: If, as a result of the confirmation in (8), the ratchet is not operating, or if the pick-up transport current is high, follow the steps below.

Countermeasure

Because it is possible that the problem is not play of the vertical two-step ratchet gear, but that the ratchet gear is being constantly pressed, replace the 0.25t polyslider washer (located beneath the ratchet gear) with a 0.13t polyslider washer.

B. Electrical Adjustment

So far we have presented explanations regarding compact disc player handing, notes prior to repair, handing the pick-up and disassembly of the unit. Be sure to carefully read these instructions before making any adjustments.

Test discs Required for Adjustments and Checks

No.	Designation	Description (manufacturer)
1	414 245-2	for demonstration (Polygram)
2	YEDS-7	−10dB .1KHz (Sony)

Note: Test discs are subject to change without notice.

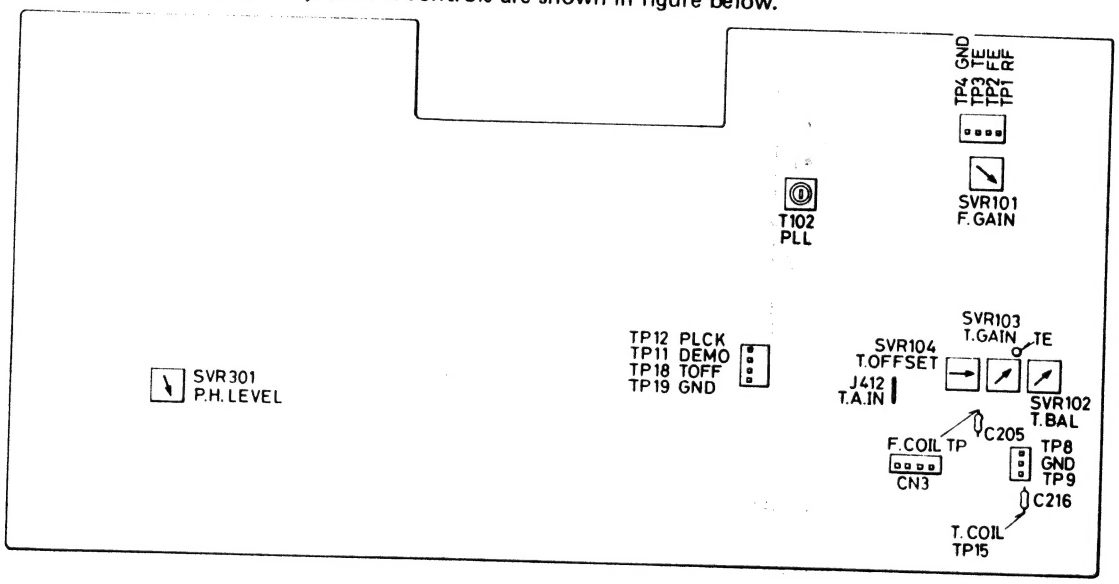
Measuring Instruments Required for Adjustments

Designation	Model	(manufacturer)
Oscilloscope	SS5711 (100MHz, 3 phenomena observation)	(Iwasaki Communications)
Storage scope	DSS6521 (memory scope)	(Kikusui Electric)
AC digital voltmeter	Digital tester or digital multi-meter can also be used.	
AF oscillator	Low frequency oscillator	
Band pass filter	See attached figure below	
Frequency counter	More than 5MHz	
Driver for grating	614 152 1534	(SANYO)

Notes: 1. Adjustments are also possible by using instruments from other manufacturers if the performance corresponds to that described above.
2. Use a probe when using an oscilloscope, storage scope, digital voltmeter to observe the signal. Be sure to connect the probe ground to the indicated ground line.

1. Initial Set-up

The initial set position of the adjustment controls are shown in figure below.



2. PLL-VCO (Phase Locked Loop Voltage Control Oscillator) Adjustment

1. Connect the frequency counter to TP12 and TP19 (or chassis).
2. Turn on the power of the unit.
3. Adjust T102 so that the frequency counter shows 4.30 ± 0.005MHz.

* If this adjustment is imperfect, get the long seek time, not read TOC, not sound. In the worst case, become high speed tuning, reverse tuning and it may wound the Disc.

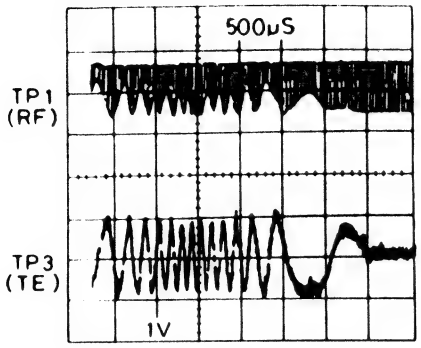
3. Tracking Offset pre-adjustment (Pre-adjustment of SVR104)

1. Take off the CN3 (Sled, Spindle Motor)
2. Connect the oscilloscope to TP15 (Tracking coil) and TP4 (GND.).
3. Connect TP18 (TOFF) to TP19 (GND.).
4. Turn on the power.
5. Adjust SVR104 so that the voltage of TP15 is shown 60mV ± 20mV.

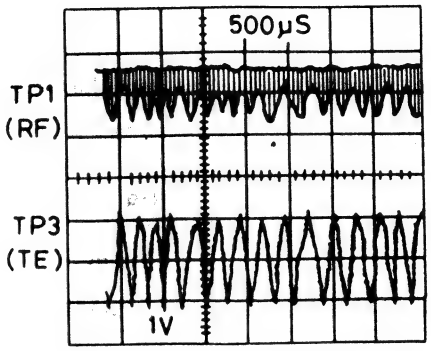
* If this adjustment is imperfect, inferior playability and can not playback the Disc.

4. Tracking Balance Adjustment (SVR102)

1. Connect the oscilloscope to TP3 (TE) and TP4 (GND.).
2. Turn on the power of the unit.
3. Play the test disc.
4. Continue doing to press the SEARCH ▶▶ or ◀◀ button to do it.
5. Adjust SVR102 so that the TE (Tracking Error) signal waveform of TP3 on the oscilloscope is vertically symmetrical relative to 0V. (See figure below)



(a)



(b)

* If the adjustment is imperfect, become run away the spindle motor (pick-up sending motor), inferior playability.

Adjustment by the traverse waveform

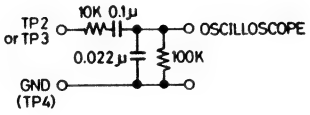
1. Follow steps 1, 2 and 3 as above.
2. Rotate SVR103 (Tracking gain) to the left end, or connect the STW 10mm (J412, T.A.IN) to GND. (see PARTS LOCATION)
3. At the same time to load the test disc, it is observed the traverse waveform at TP3 during 5 sec.
   Adjust SVR102 so that it's waveform on the oscilloscope is vertically symmetrical relative to 0V. (see Figure (b) above).

5. Focus Gain Adjustment (SVR101)

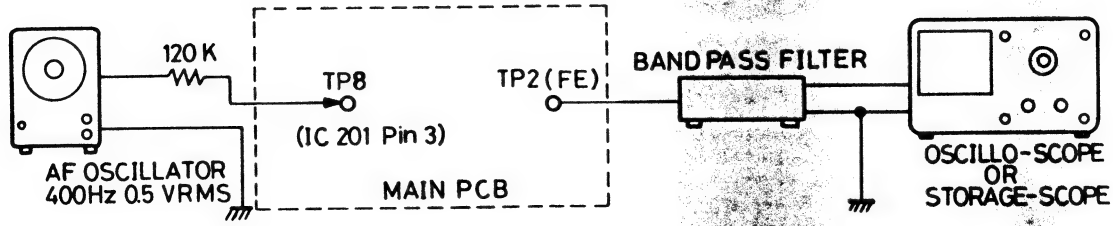
1. Connect the storage scope to TP2 (F.E) by the Band pass filter 1 (See BPF1 Figure).
2. Turn on the power of the unit.
3. Playback the test disc.
4. Set the output of AF oscillator to 400Hz, 0.5V rms and connect to TP8 (IC201 pin 3) by resistor 120K ohm.
5. Adjust SVR101 so that the voltage of F.E signal waveform on the storage scope is 1Vp-p by through BPF1.

If this adjustment is imperfect, become weak the mechanical shock, inferior playability, and can not playback the Disc.

BPF 1



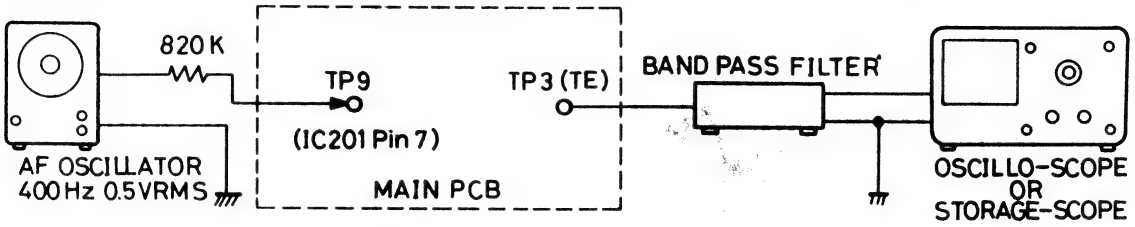
BAND PASS FILTER 1



6. Tracking Gain Adjustment (SVR103)

1. Connect the storage scope to TP3 (T.E) by the Band pass filter 1 (See BPF1 Figure).
2. Turn on the power of the unit.
3. Playback the test disc.
4. Set the output of AF oscillator to 400Hz, 0.5V rms and connect to TP9 (IC201 pin 7) by resistor 820K ohm.
5. Adjust SVR103 so that the voltage of the T.E signal waveform on the storage scope is 1Vp-p by through BPF1.

* If this adjustment is imperfect, become weak the mechanical shock, inferior playability, and can not playback the Disc.



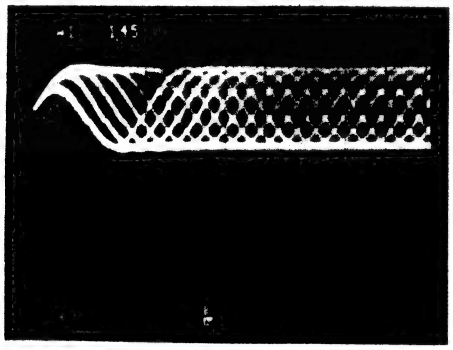
7. Peak Hold Adjustment (SVR301)

1. Turn on the power of the unit. Set the function switch to "CD" mode.
2. Playback the test disc (No. 2 –10dB, for example: YEDS-7 Track No. 18)
3. Adjust SVR301 so that the voltage (IC301 pin 26, 27) indicates the numeric as shown the following table.

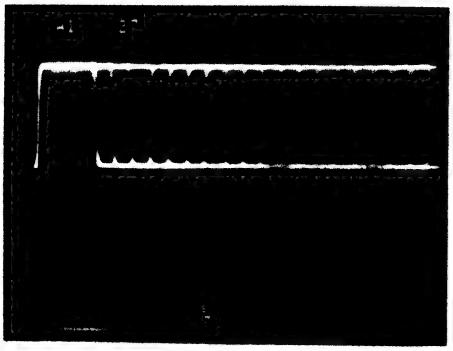
Pin No.	Voltage
26	5.1 ± 1.0V
27	0 ± 1.0V

NORMAL WAVE FORM OF TEST POINT

① TP1
RF signal

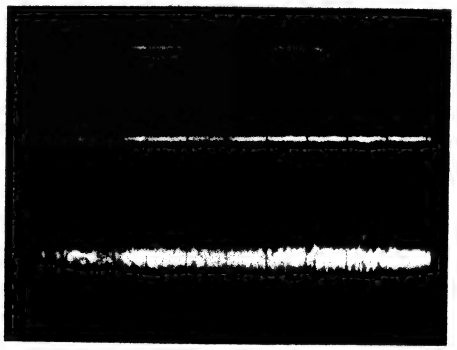


② IC401-6
EFM signal



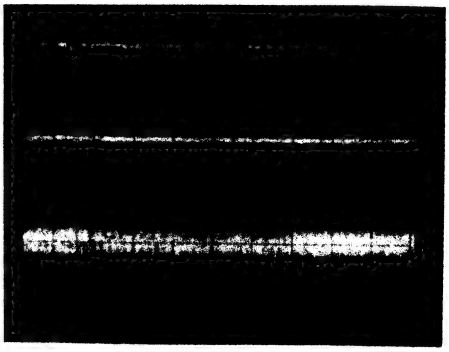
③ TP1
RF signal

TP2
F.E signal



④ TP1
RF signal

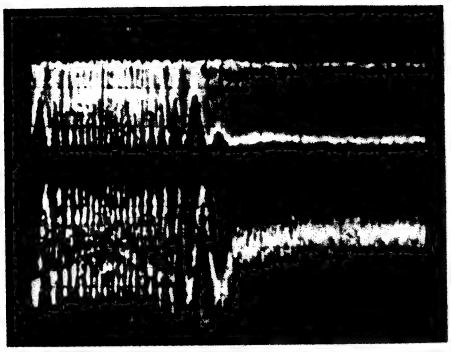
TP3
T.E signal



SEARCH time

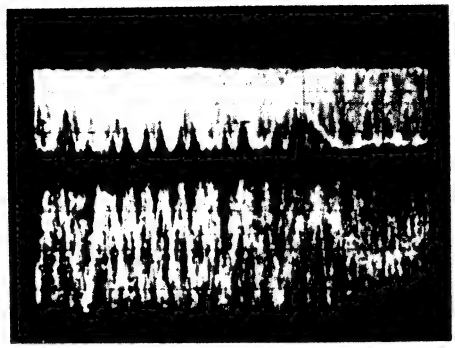
⑤ TP1
RF signal

TP3
T.E signal

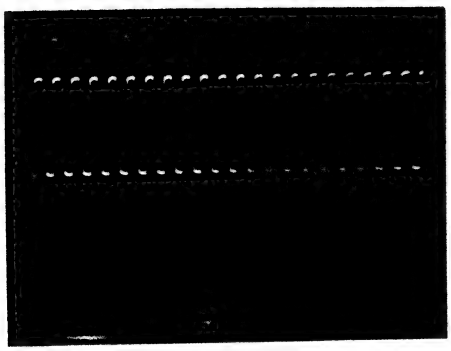


⑥ TP1
RF signal

TP3
T.E signal
(Minimum gain of Tracking gain)



⑦ TP12
PLCK

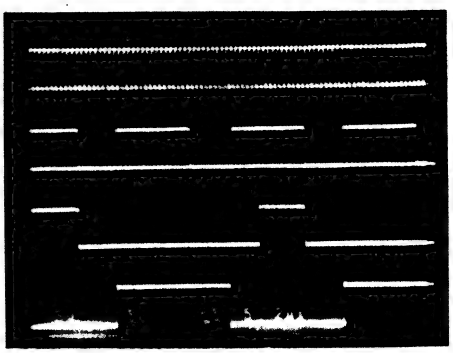


⑧ IC501-9
BLCK

IC501-8
DATA

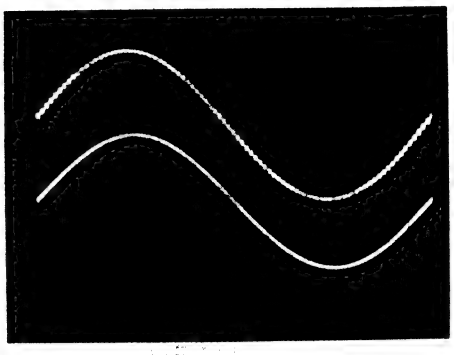
IC501-7
WCLK1

IC501-6
LRCK

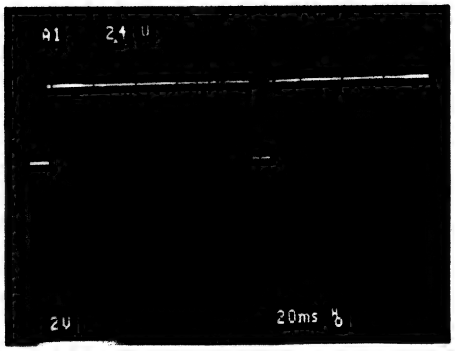


⑨ TP501
LPF IN

LPF OUT
1 kHz 0 dB
(PLAYBACK)



⑩ IC302-15
IR
(Pushing a remotocontrol key.)



9. ADJUSTMENT OF DECK & TORQUE

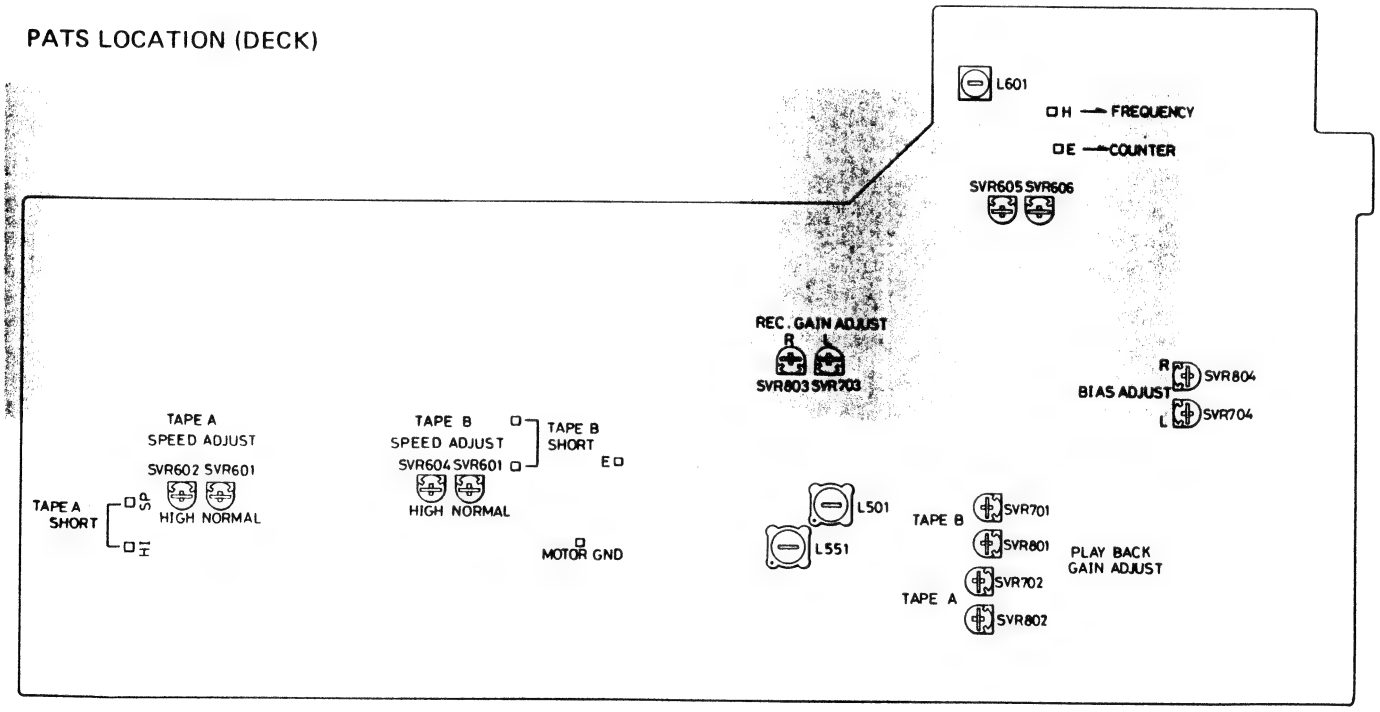
- Beat cancel switch to "1" position when adjustment and measurement and confirm "2" position of item Rec/Play Frequency quality.
- Set the Dolby switch to "OFF" position and measurement of output point to "DAT/VTR OUT" terminal position.

Amplifier Adjustment

	Item	Deck	Test Tape	Input	Adjust Point	Remarks
1	Head Azimuth	TAPE A TAPE B	VTT-738	—	Azimuth screw	Adjustment to obtain maximum. right and left balanced output (using a dual-phenomenon oscilloscope)
2	Playback Level	TAPE A	TCC-130 200mW/m	—	SVR702 SVR802	Adjust to obtain 520mV output on VTVM.
		TAPE B			SVR701 SVR801	
3	Rec/Play Level	TAPE B	AC-224	BS IN 1KHz, 380mV	SVR703 SVR803	Adjust to obtain 380mV output on VTVM.
	Rec/Play Frequency	TAPE B	AC-224 (NORMAL)	BS IN 1KHz/10KHz 38mV	SVR704 SVR804	Adjust to obtain same output of 1KHz and 10KHz.
			AC-513 (CrO2)		SVR605	
			AC-712 (METAL)		SVR606	

Note: TAPE A ····· DECK 1, TAPE B ····· DECK 2.
: Output ..... DAT REC OUT

PATS LOCATION (DECK)



Tape Speed Adjustment

- Prepare the 2 kind test tape (Normal: MTT-111 or equality parts. (3000 Hz)
  High: TCW-211 or equality parts. (1500Hz)
- Adjustment should be made at the ending portion of the tape.
- High speed adjustment should be made before doing normal speed adjustment. When high speed adjustment is made again, normal speed adjustment must also be made.
- For high speed adjustment, plug the short-plug to the jumper leads shown in the parts location.

Step	Speed	Deck	Test Tape	SVR	Tape Counter
1	High	TAPE A	TCW-211 (1500Hz)	SVR602	3000Hz ± 10%
2		TAPE B		SVR604	
3	Normal	TAPE A	MTT-111 (3000Hz)	SVR601	3000Hz ± 5Hz
4		TAPE B		SVR603	

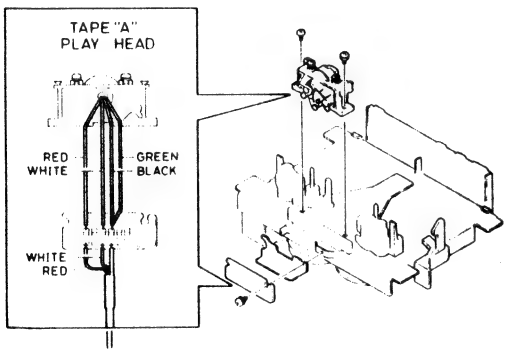
Torque Measurements

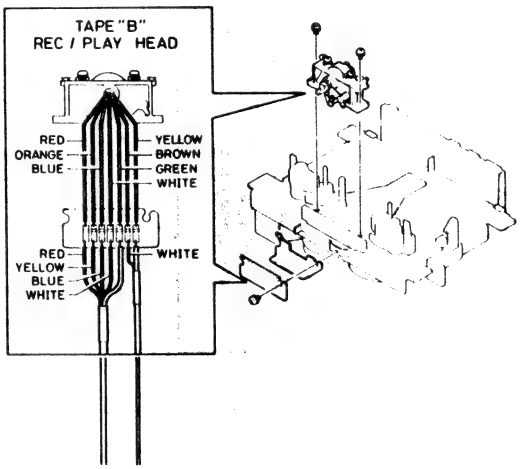
Note: Prior to measurements, clean the head, capstan and pinch roller.

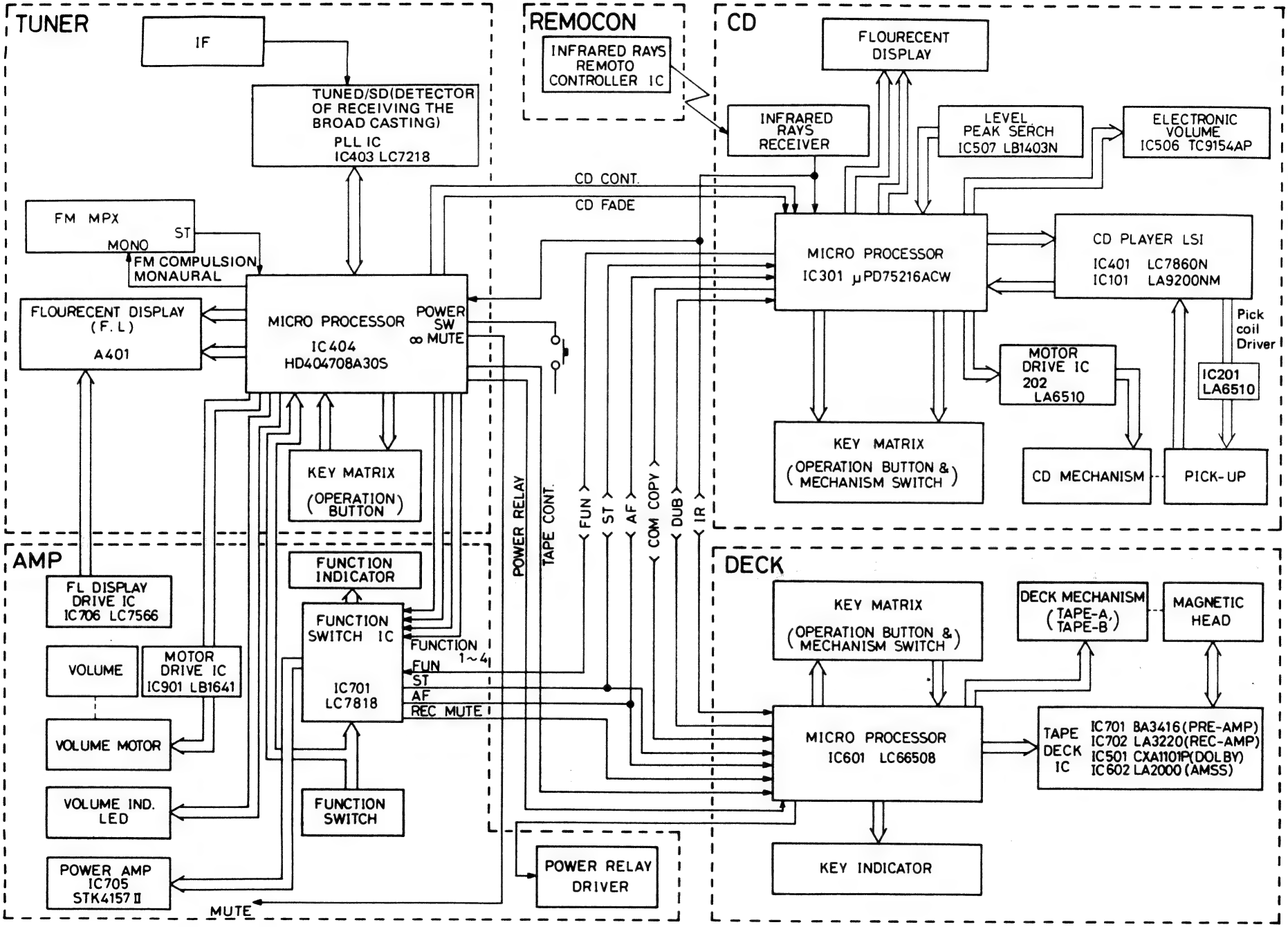
Item	Take-up torque	Back tension	Pulley tension
Test cassette	PLAY: TW-2111A (FWD) PLAY: TW-2121A (REW) F·FWD/REW: TW-2231	PLAY: TW-2111A (FWD) PLAY: TW-2121A (REV)	Driving power cassette TW-2412 (FWD) TW-2422 (REV)
PLAY	30 ~ 60 gr·cm	2.0 ~ 5.0 gr·cm	> 80 gr
F·FWD	55 ~ 140 gr·cm	—	
REW	55 ~ 140 gr·cm	—	

10. HEAD REPLACEMENT

- After replacing the head, demagnetize the head by using a head eraser.
- Be sure to clean the head assembly before making the adjustment.

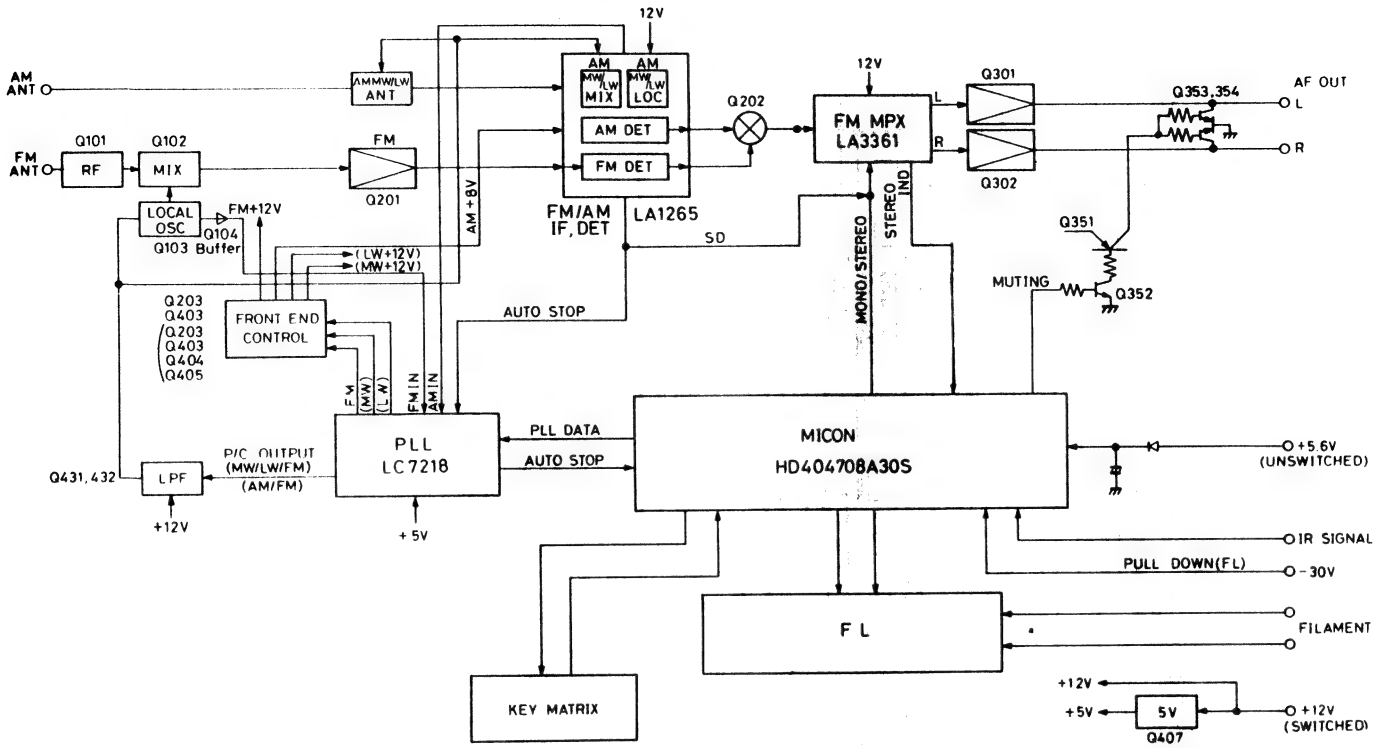




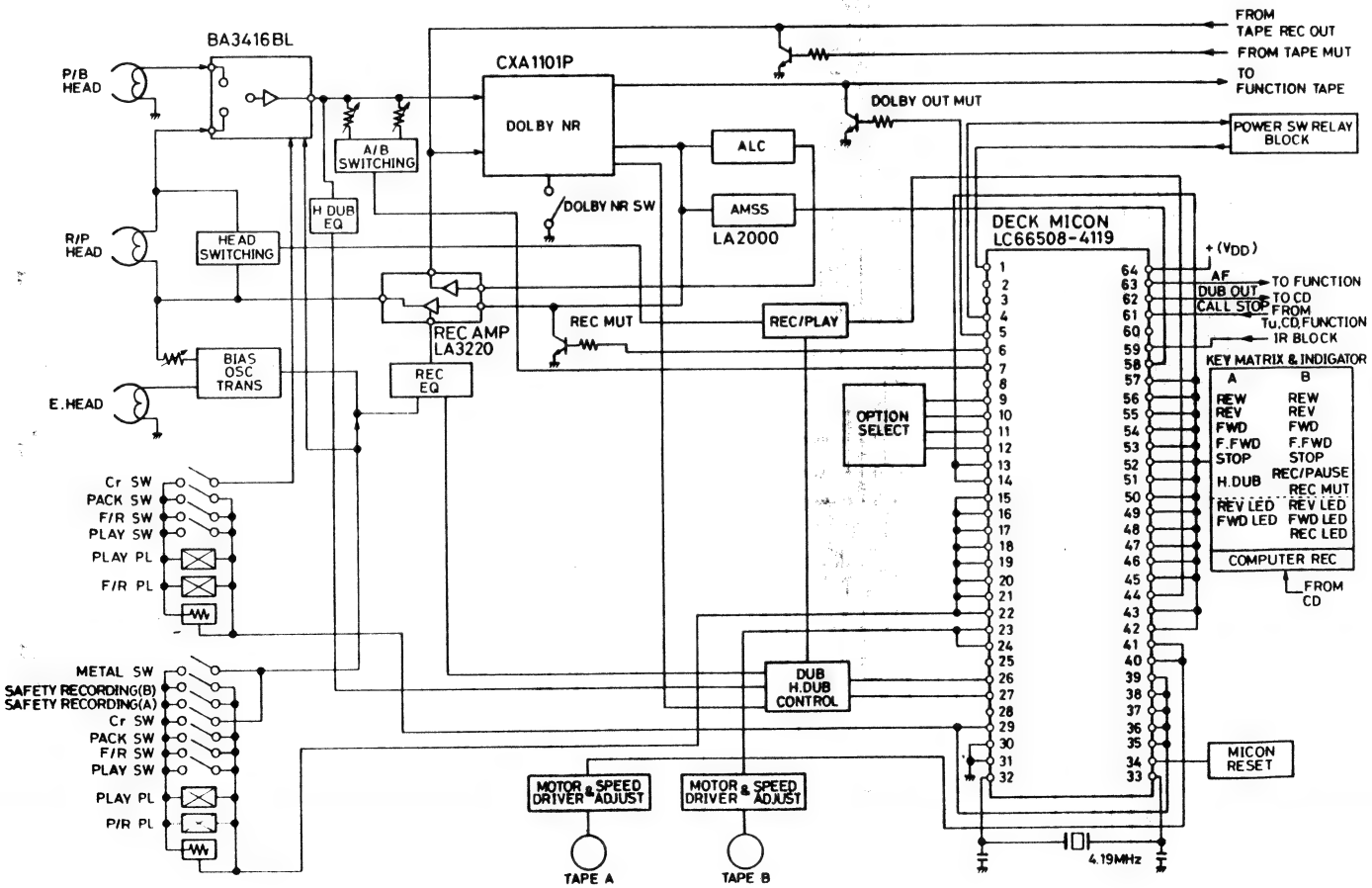

TUNER
IF
TUNED/SD(DETECTOR OF RECEIVING THE BROAD CASTING)
PLL IC
IC403 LC7218
FM MPX
ST
MONO
FM COMPULSION MONAURAL
FLOURECENT DISPLAY (F.L)
A401
MICRO PROCESSOR
IC404
HD404708A30S
POWER SW ∞ MUTE
KEY MATRIX
(OPERATION BUTTON)
REMOCON
INFRARED RAYS REMOTO CONTROLLER IC
CD
FLOURECENT DISPLAY
INFRARED RAYS RECEIVER
LEVEL PEAK SERCH
IC507 LB1403N
ELECTRONIC VOLUME
IC506 TC9154AP
CD CONT.
CD FADE
MICRO PROCESSOR
IC301 μPD75216ACW
CD PLAYER LSI
IC401 LC7860N
IC101 LA9200NM
Pick coil Driver
MOTOR DRIVE IC
202
LA6510
IC201
LA6510
KEY MATRIX
(OPERATION BUTTON & MECHANISM SWITCH)
CD MECHANISM
PICK-UP
POWER RELAY
TAPE CONT.
FUN
ST
AF
COM COPY
DUB
IR
AMP
FL DISPLAY DRIVE IC
IC706 LC7566
FUNCTION INDICATOR
FUNCTION SWITCH IC
IC701
LC7818
FUNCTION 1~4
FUN
ST
AF
REC MUTE
VOLUME
MOTOR DRIVE IC
IC901 LB1641
VOLUME MOTOR
VOLUME IND. LED
FUNCTION SWITCH
POWER AMP
IC705
STK4157 II
MUTE
POWER RELAY DRIVER
DECK
KEY MATRIX
(OPERATION BUTTON & MECHANISM SWITCH)
DECK MECHANISM
(TAPE-A, TAPE-B)
MAGNETIC HEAD
MICRO PROCESSOR
IC601 LC66508
TAPE DECK IC
IC701 BA3416 (PRE-AMP)
IC702 LA3220 (REC-AMP)
IC501 CXA1101P (DOLBY)
IC602 LA2000 (AMSS)
KEY INDICATOR

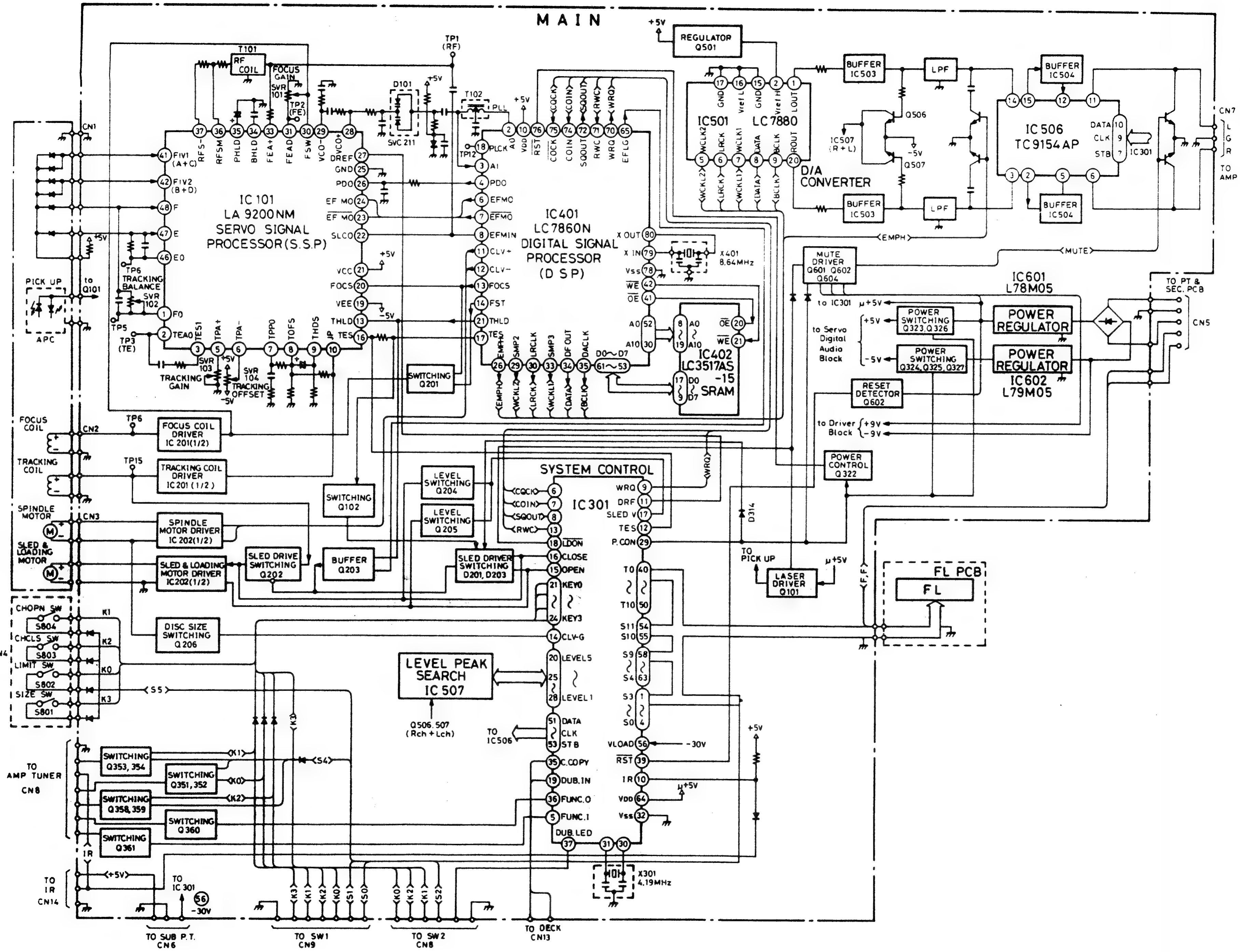
12. BLOCK DIAGRAM

<TUNER SECTION>

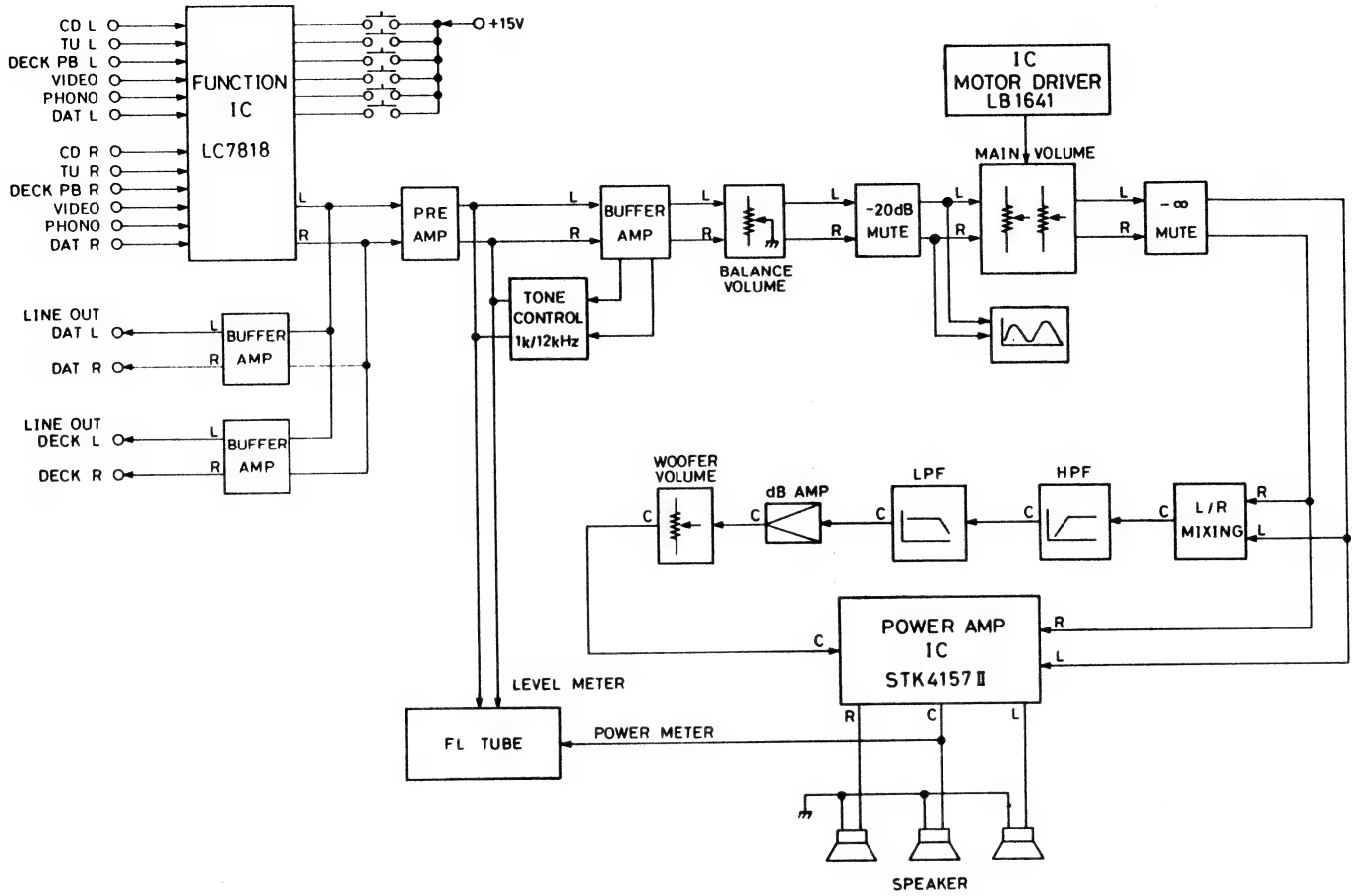


<DECK SECTION>




MAIN
IC 101
LA 9200NM
SERVO SIGNAL
PROCESSOR (S.S.P)
IC401
LC7860N
DIGITAL SIGNAL
PROCESSOR
(D S P)
IC501 LC7880
D/A
CONVERTER
IC 506
TC9154AP
REGULATOR
Q501
BUFFER
IC503
BUFFER
IC504
LPF
MUTE
DRIVER
Q601 Q602
Q604
IC601
L78M05
POWER
REGULATOR
IC602
L79M05
POWER
SWITCHING
Q323, Q326
POWER
SWITCHING
Q324, Q325, Q327
RESET
DETECTOR
Q602
POWER
CONTROL
Q322
IC402
LC3517AS
-15
SRAM
X401
8.64MHz
T101
RF
COIL
FOCUS
GAIN
SVR
101
TP1
(RF)
TP2
(FE)
D101
SVC 211
T102
PLL
TP12
TP6
TRACKING
BALANCE
SVR
102
TP5
TP3
(TE)
SVR
103
TRACKING
GAIN
SVR
104
TRACKING
OFFSET
PICK UP
APC
to
Q101
CN1
CN2
CN3
CN4
CN5
CN7
TO
AMP
TO PT &
SEC. PCB
to IC301
to Servo
Digital
Audio
Block
to Driver
Block
FOCUS
COIL
TRACKING
COIL
SPINDLE
MOTOR
SLED &
LOADING
MOTOR
FOCUS COIL
DRIVER
IC 201(1/2)
TRACKING COIL
DRIVER
IC 201 (1/2)
SPINDLE
MOTOR DRIVER
IC 202(1/2)
SLED & LOADING
MOTOR DRIVER
IC202(1/2)
SLED DRIVE
SWITCHING
Q202
BUFFER
Q203
SWITCHING
Q102
SWITCHING
Q201
LEVEL
SWITCHING
Q204
LEVEL
SWITCHING
Q205
SLED DRIVER
SWITCHING
D201, D203
DISC SIZE
SWITCHING
Q206
SYSTEM CONTROL
IC301
LEVEL PEAK
SEARCH
IC 507
Q506, 507
(Rch + Lch)
TO
IC506
TO
PICK UP
LASER
DRIVER
Q101
FL PCB
FL
X301
4.19MHz
CHOPN SW
S804
CHCLS SW
S803
LIMIT SW
S802
SIZE SW
S801
TO
AMP TUNER
CN8
SWITCHING
Q353, 354
SWITCHING
Q351, 352
SWITCHING
Q358, 359
SWITCHING
Q360
SWITCHING
Q361
TO
IR
CN14
TO
IC 301
-30V
TO SUB P.T.
CN6
TO SW1
CN9
TO SW2
CN8
TO DECK
CN13

< AMP SECTION >

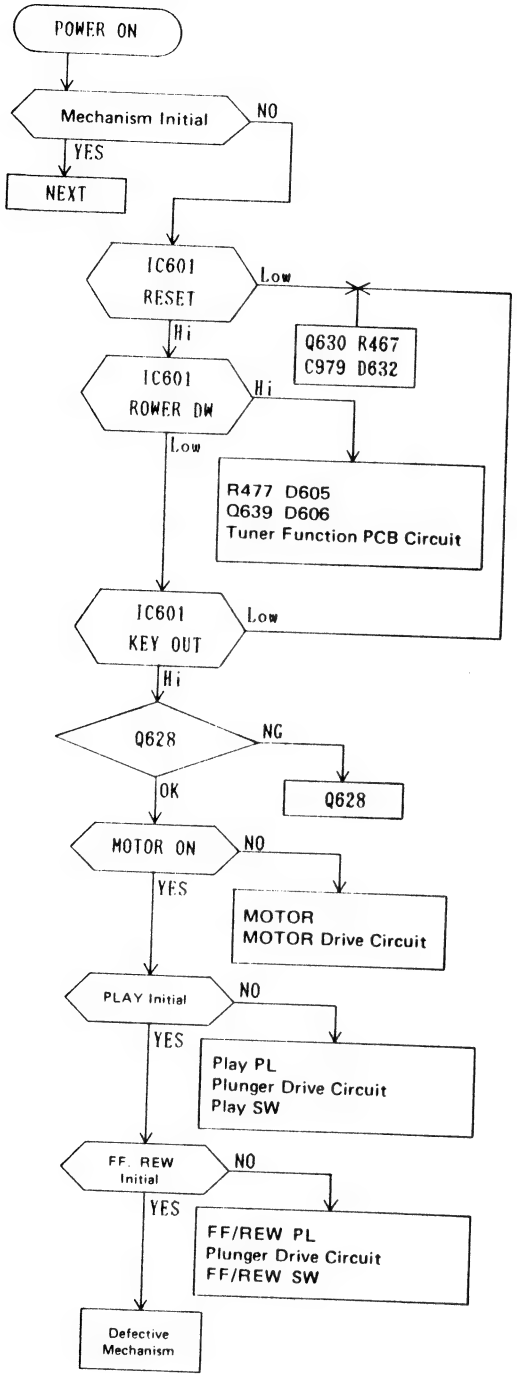

CD L
TU L
DECK PB L
VIDEO
PHONO
DAT L
CD R
TU R
DECK PB R
VIDEO
PHONO
DAT R
FUNCTION IC LC7818
+15V
IC MOTOR DRIVER LB1641
MAIN VOLUME
PRE AMP
BUFFER AMP
BALANCE VOLUME
-20dB MUTE
- ∞ MUTE
TONE CONTROL 1k/12kHz
LINE OUT DAT L
DAT R
BUFFER AMP
LINE OUT DECK L
DECK R
BUFFER AMP
WOOFER VOLUME
dB AMP
LPF
HPF
L/R MIXING
POWER AMP IC STK4157 II
LEVEL METER
FL TUBE
POWER METER
SPEAKER

13. MICON FLOW CHART

Describe the 3 Block (Deck, CD, Tuner) in order action of microprocessor.

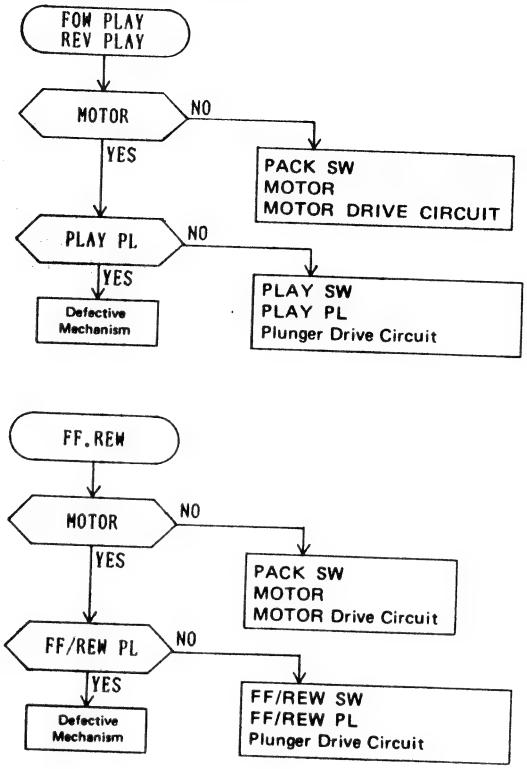
1. Deck section (IC601 ... LC66508)

(1) Power "ON"



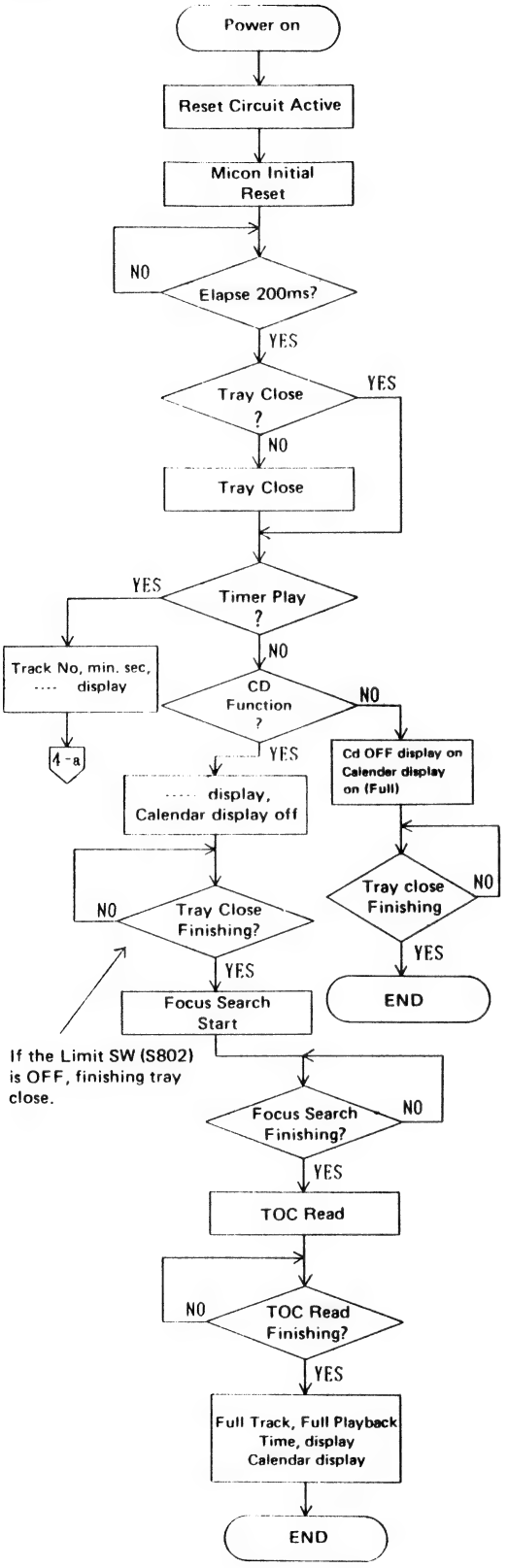
PLAY.FF.REW Initial signal resets PLAY.FF.REW mode of the mechanism before Power ON.

(2) Forward, Reverse Play

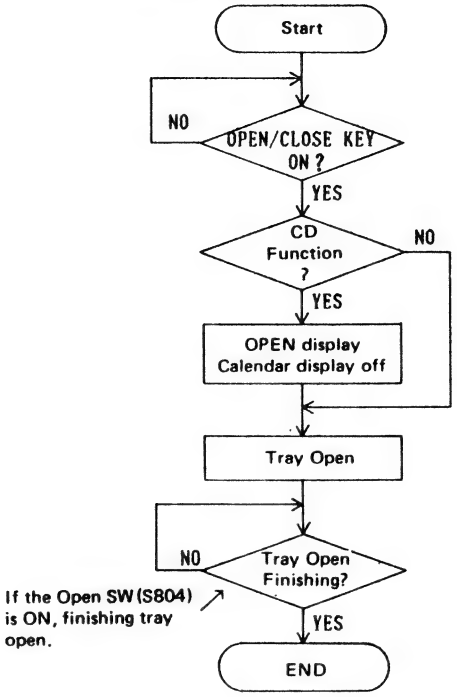


2. CD section (IC301 ..... μPD75216ACW)

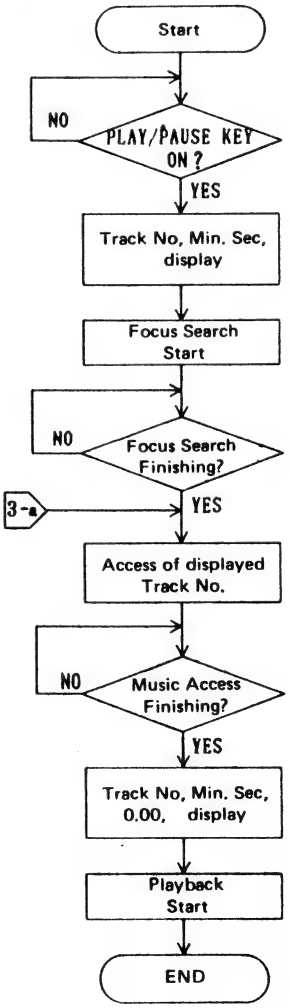
(1) Power "ON"



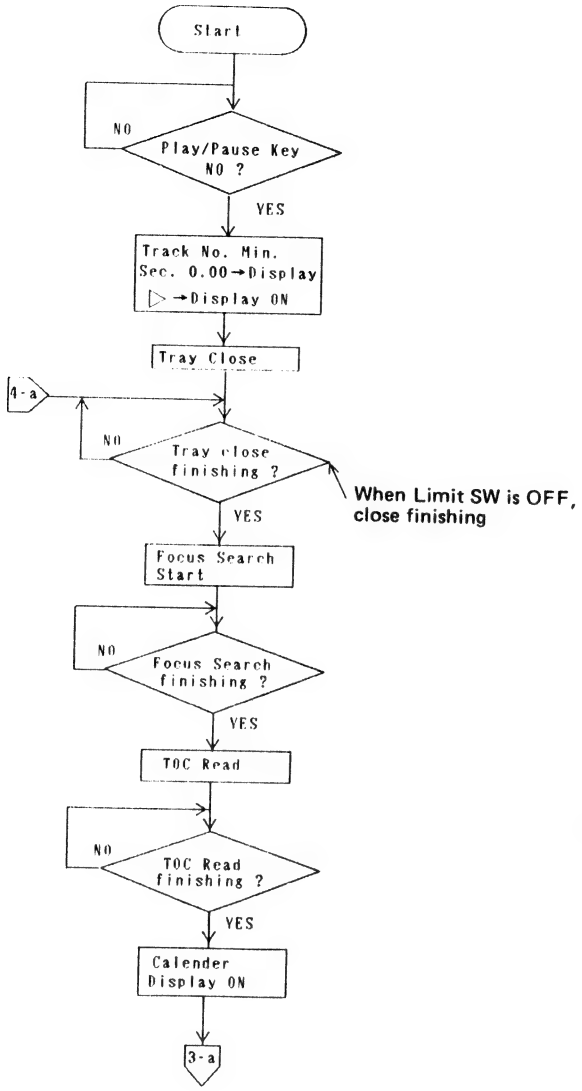
(2) Tray "OPEN" from STOP



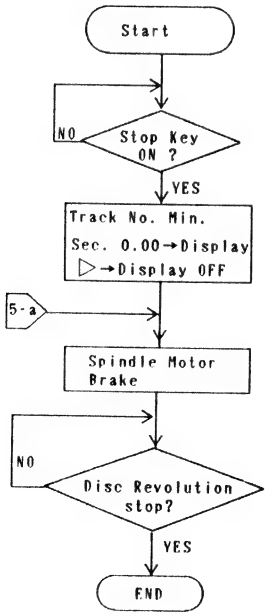
(3) PLAY from STOP



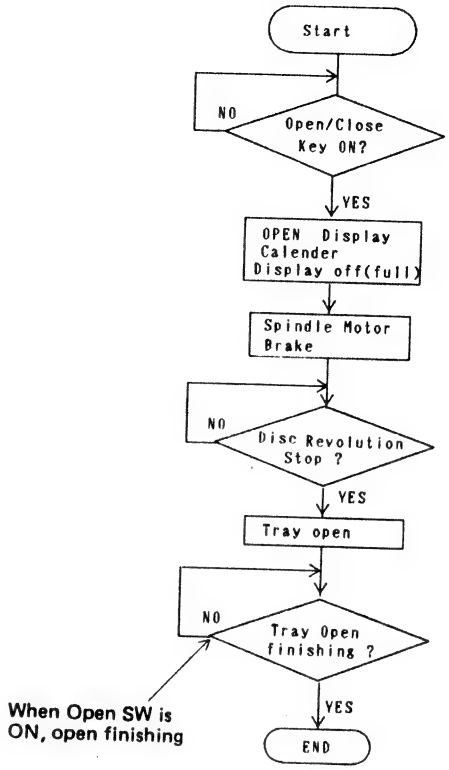
(4) PLAY from Tray "OPEN"



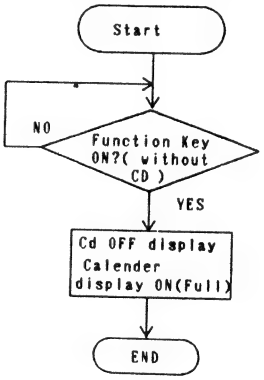
(5) STOP from PLAY



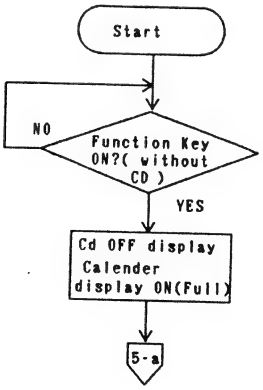
(6) Tray "OPEN" from PLAY



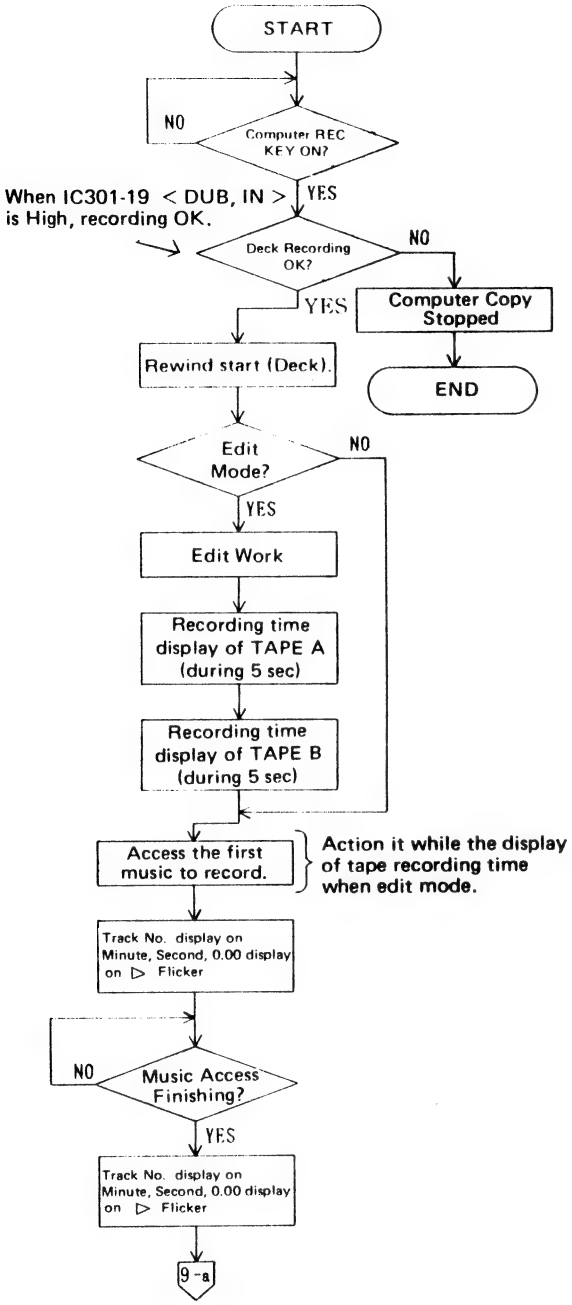
(7) Other Function from CD Function (at STOP)

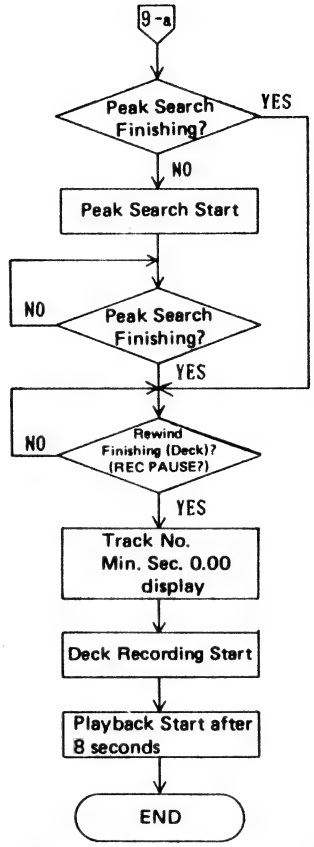


(8) Other Function from CD Function (at PLAY)



(9) Computer Copy

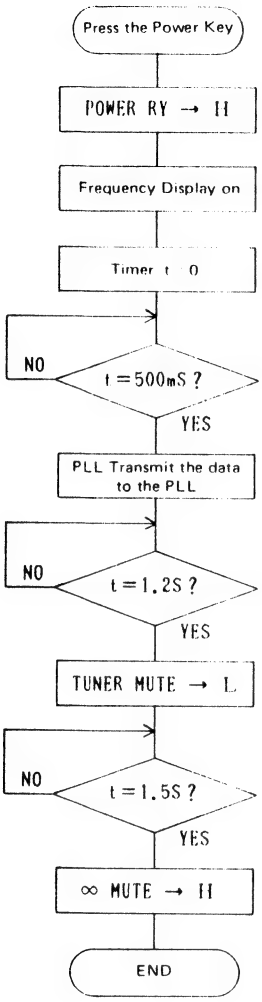




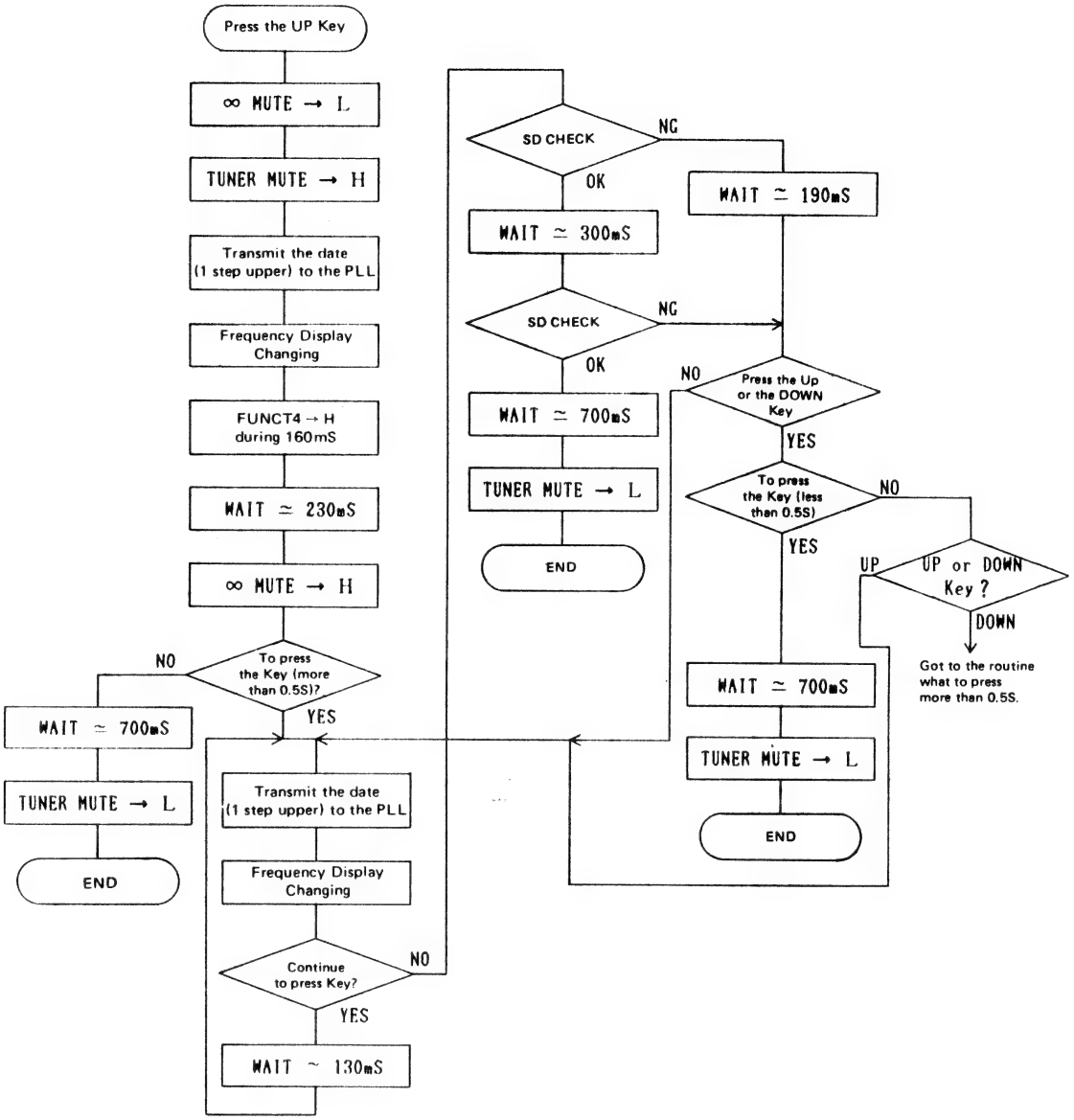
To be enable computer copy key only in CD function STOP mode.
Deck is become PAUSE mode after Rewind finishing.
In Edit mode, be selected TAPE.

3. Tuner section (IC404 ... HD404708A30S)

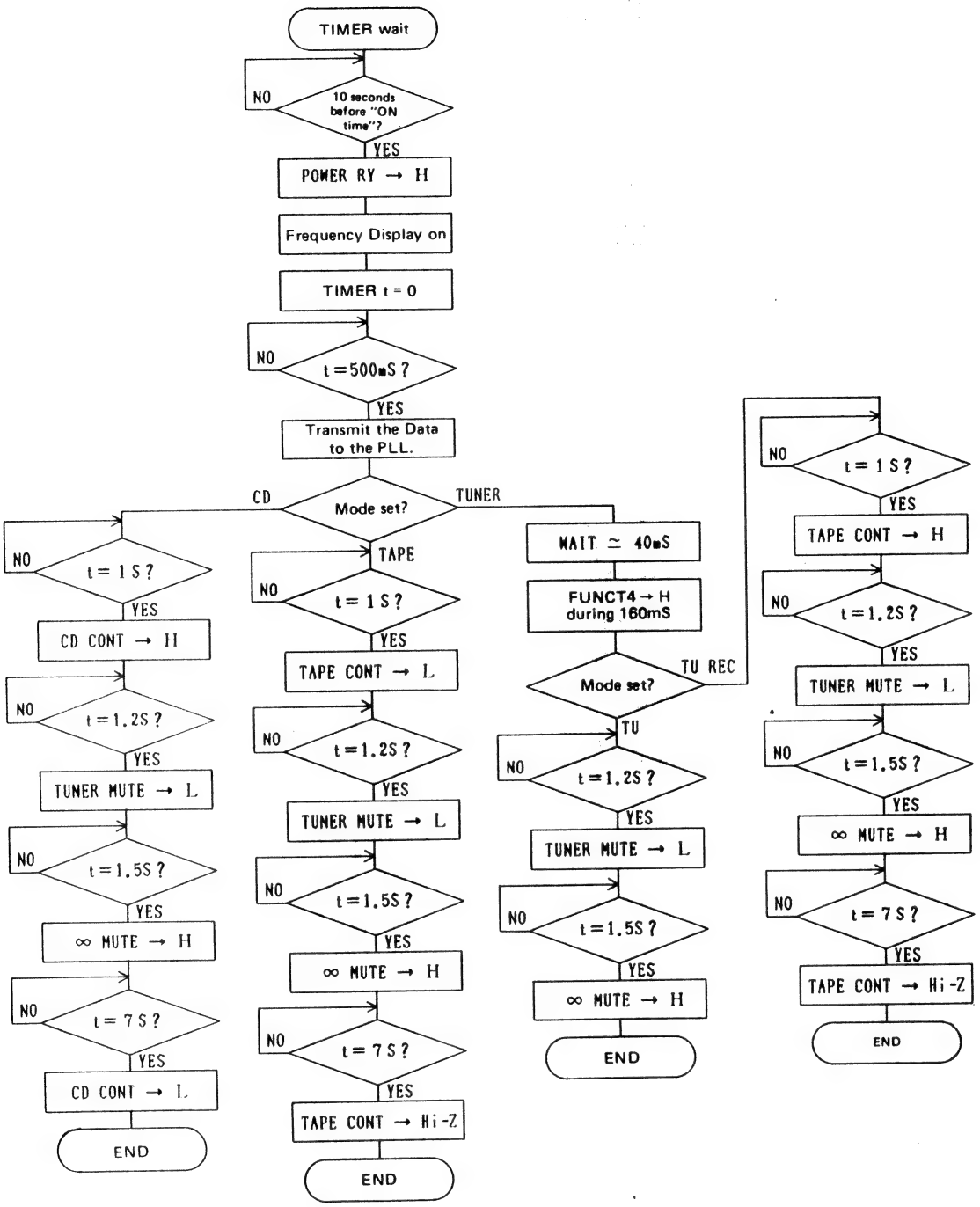
(1) Power "ON"



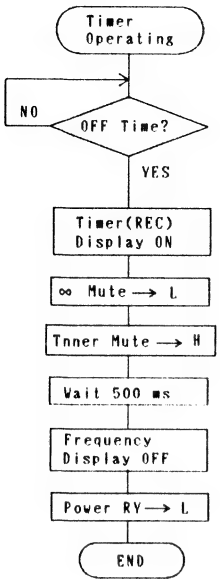
(2) Tuning (ex. upper side)



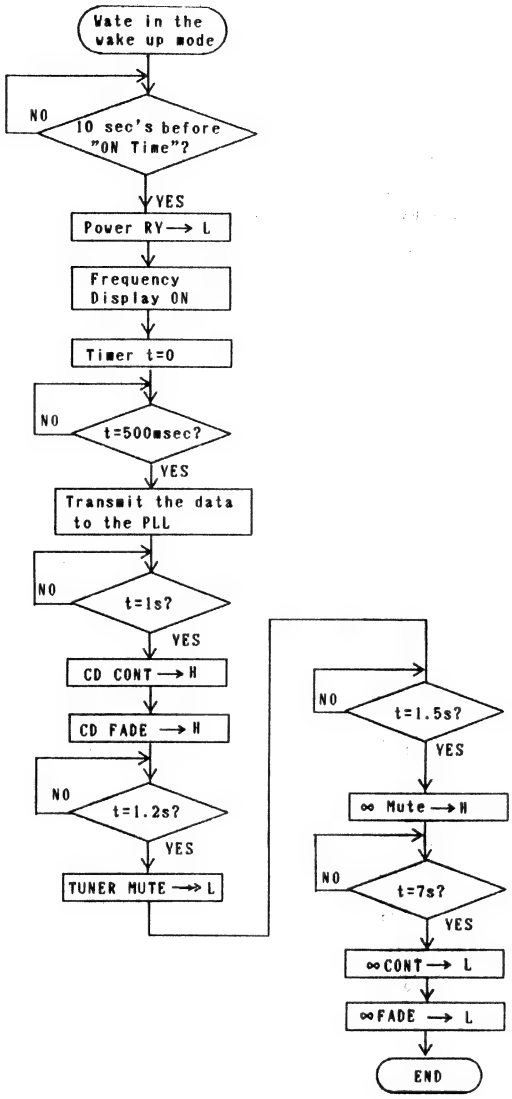
(3) Power "ON" with timer



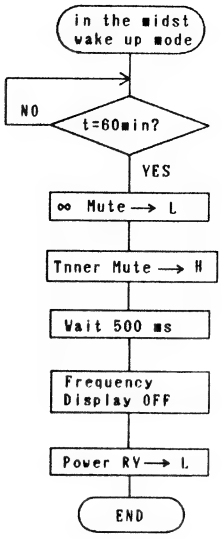
(4) Power "OFF" with timer



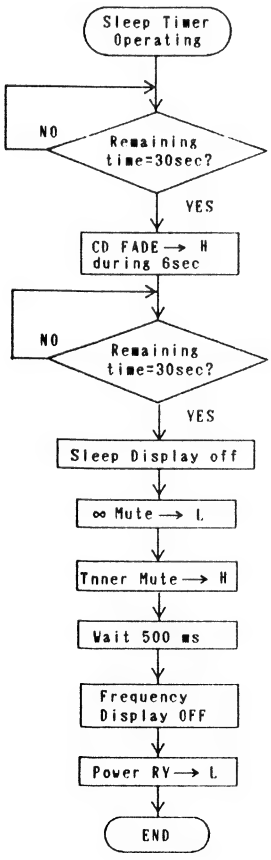
(6) CD play with wake up mode



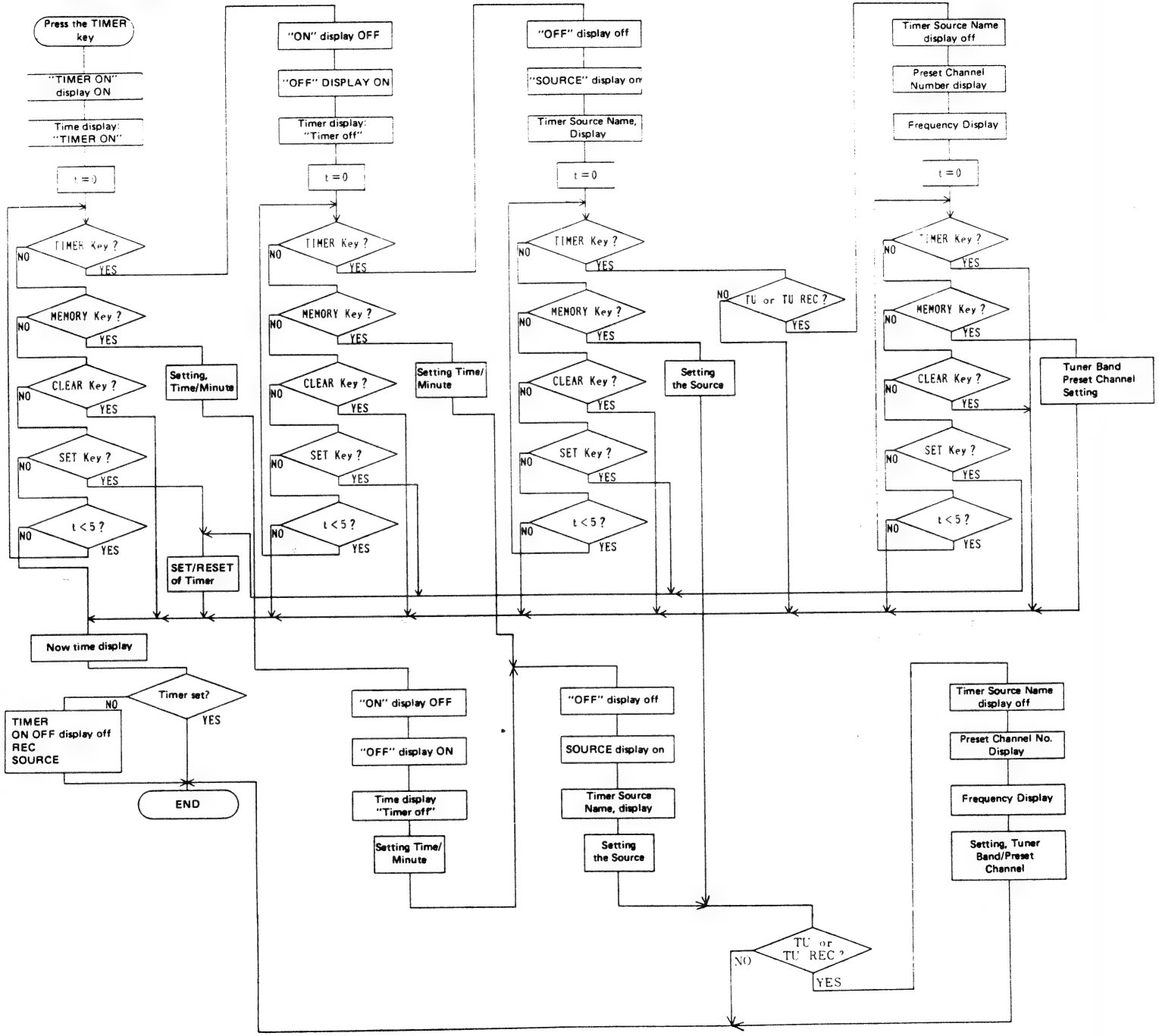
(7) Power up with wake up mode



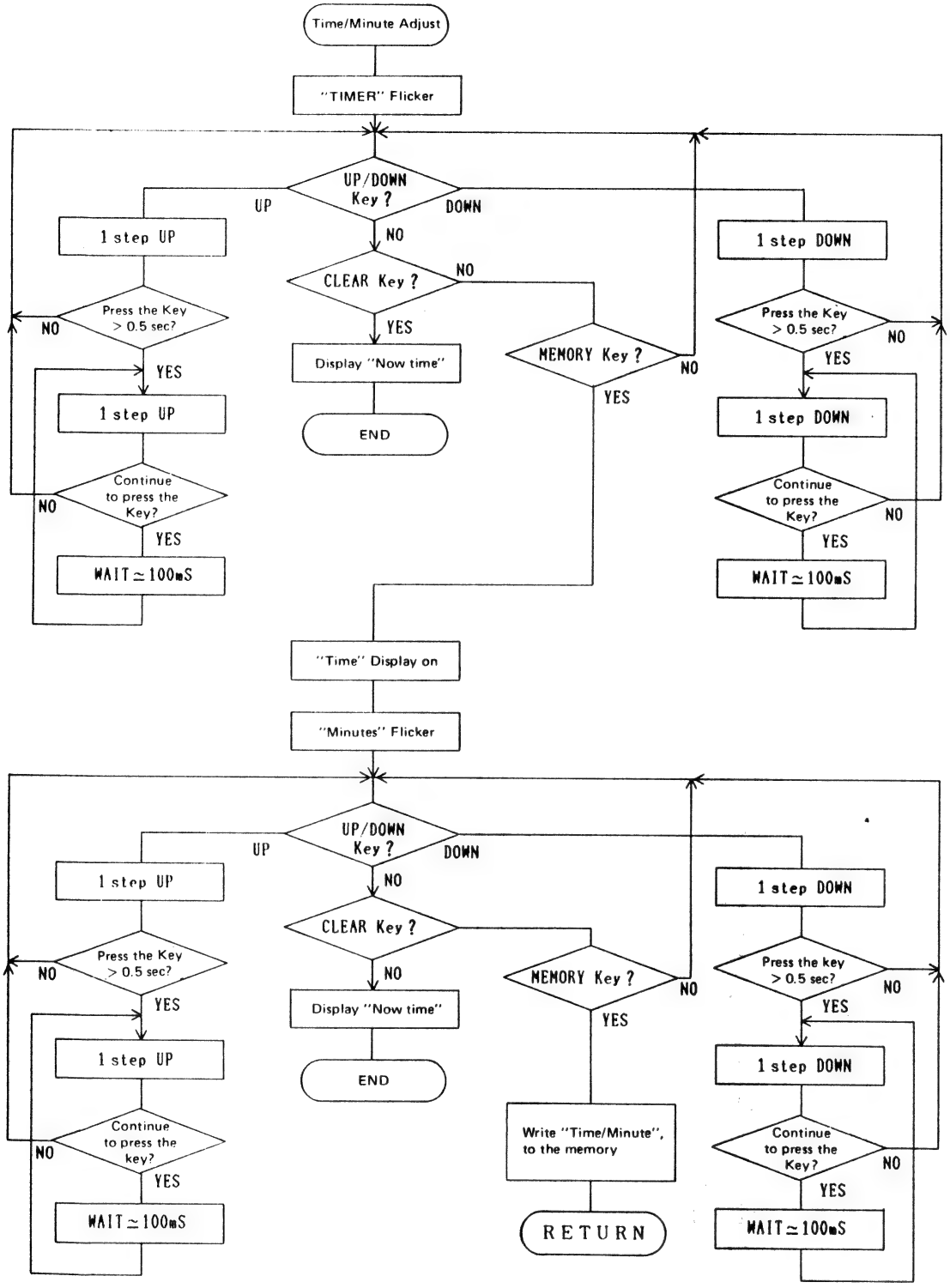
(5) Power "OFF" with sleep timer



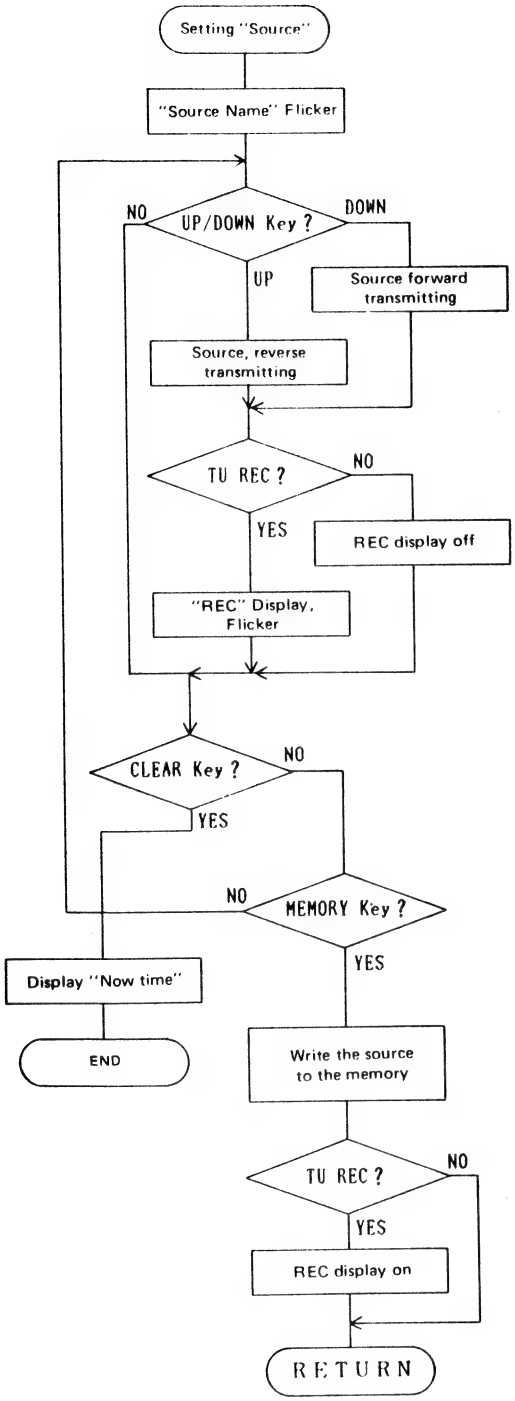
(8) Setting the timer



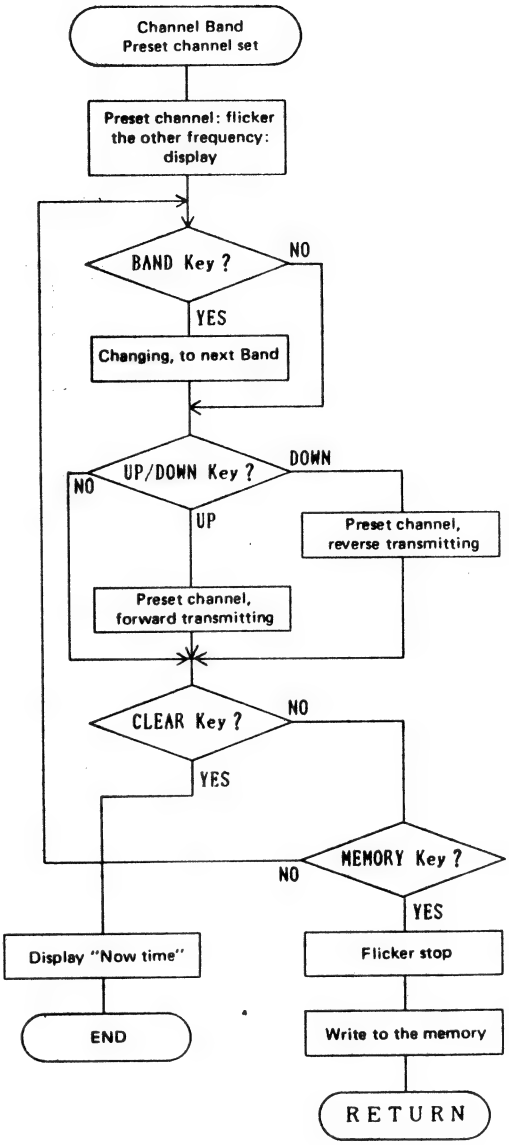
(9) Setting the Time/Minutes (Timer setting)



(10) Setting the source (Timer setting)



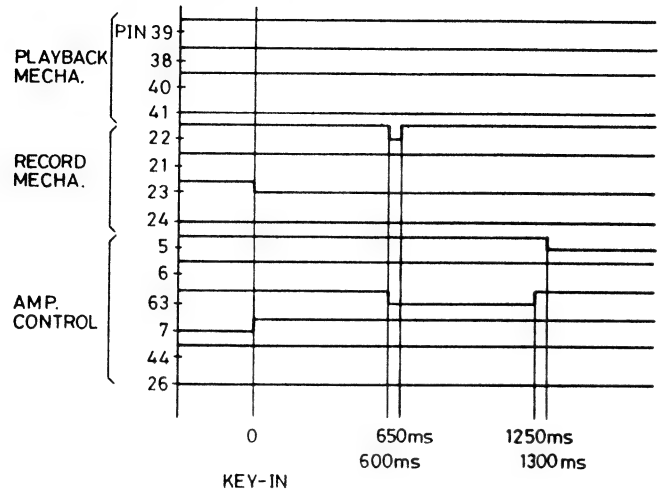
(11) Tuner band channel preset the set (Timer setting)



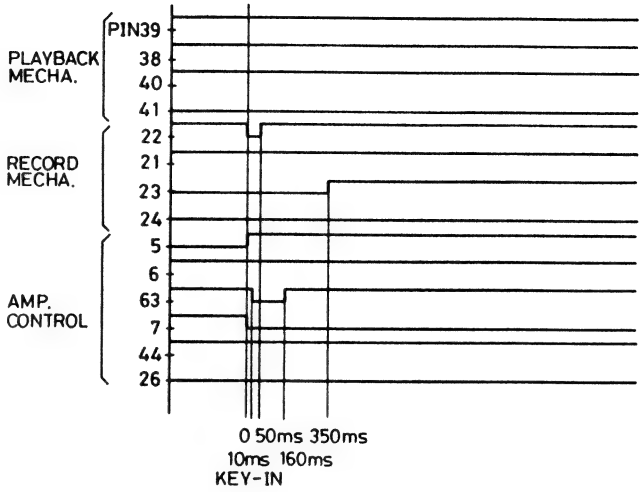
14. TIMING CHART (DECK SECTION)

IC601 (LC65508B) マイコン

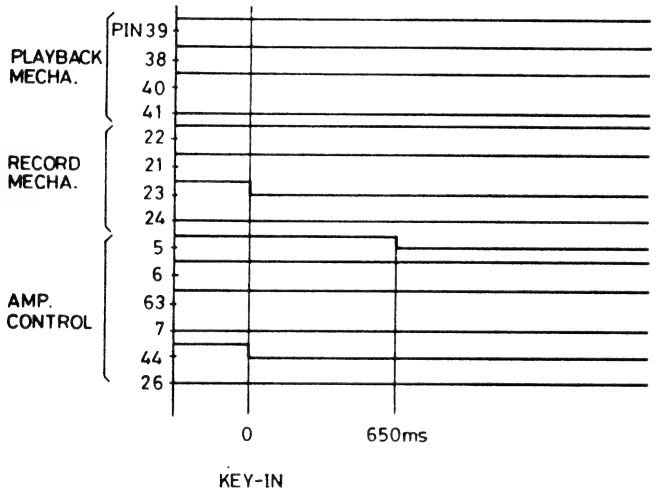
1. MODE: STOP → N·PLAY



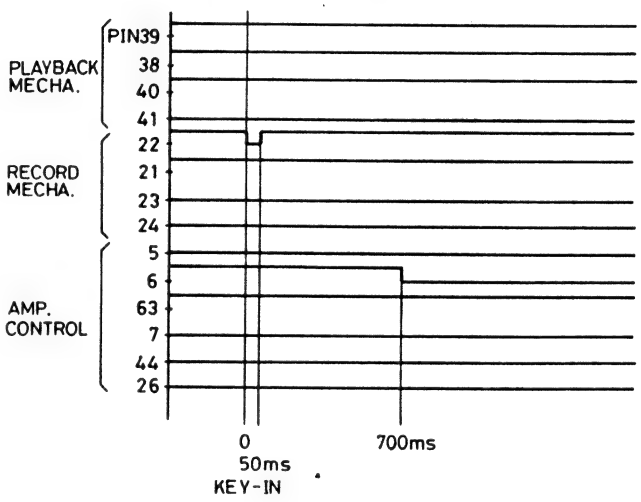
2. MODE: N·PLAY → STOP



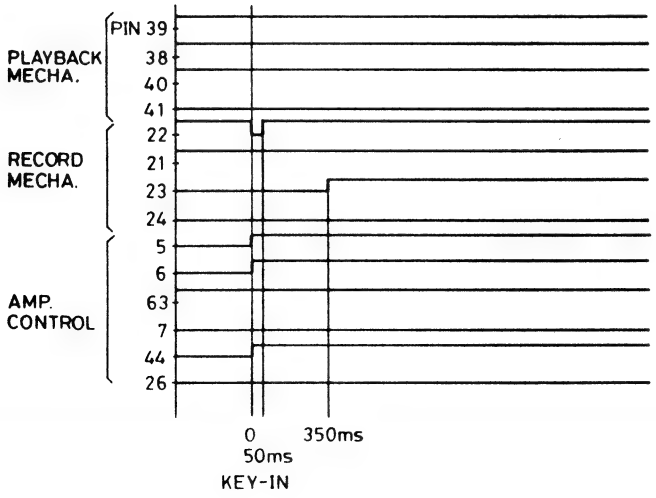
3. MODE: STOP → F·REC/PAUSE



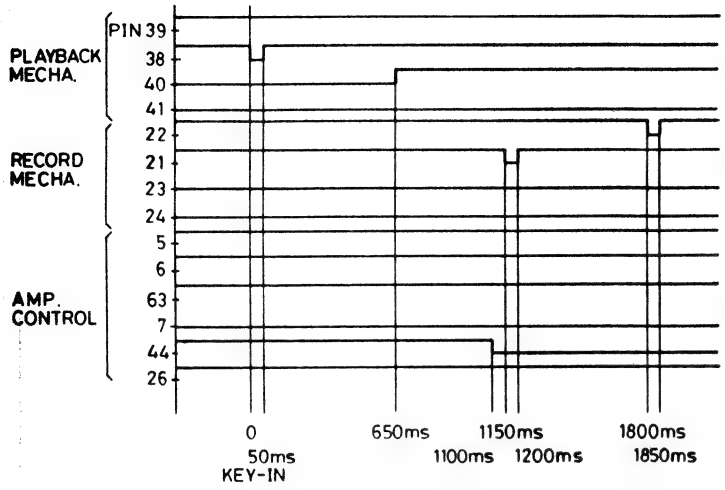
4. MODE: F·REC/PAUSE → F·REC/PLAY



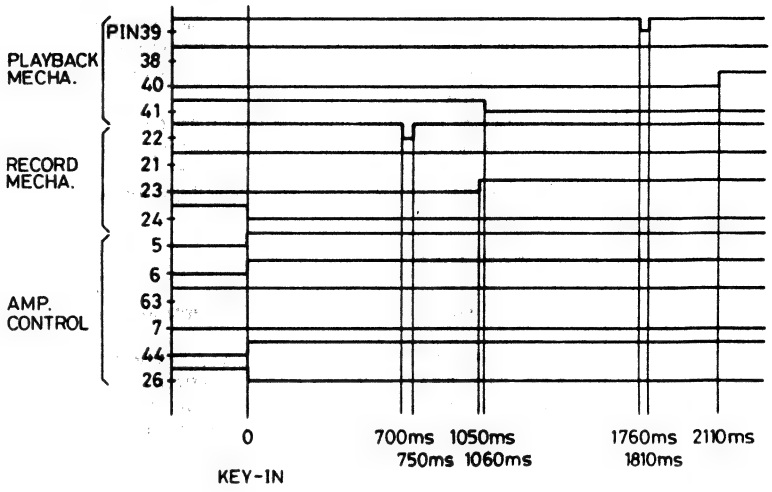
5. MODE: F·REC/PLAY → STOP



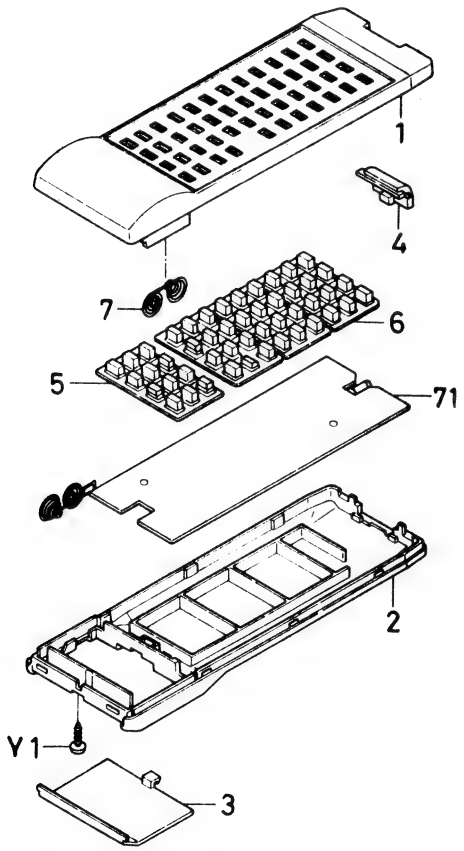
6. MODE: HIGH SPEED DUBBING STOP → START



7. MODE: F·HIGH SPEED DUBBING START → STOP



15. EXPLODED VIEW & PARTS LIST (REMOTE CONTROLLER)



CABINET & CHASSIS

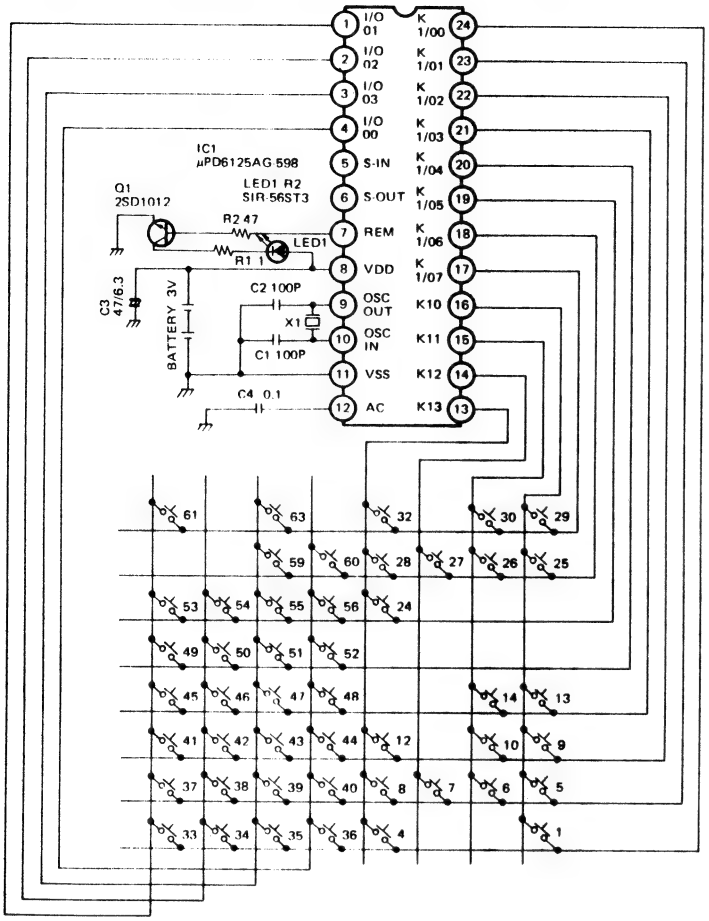
Ref. No.	Part No.	Description
1	614 216 8226	ASSY, CABINET, TOP
2	614 213 5358	CABINET, BOTTOM
3	614 213 5365	LID, BATTERY
4	614 213 5389	WINDOW, IR-TRANSMIT
5	614 216 8264	BUTTON, SMALL
6	614 216 8257	BUTTON, LARGE
7	614 213 5631	SPRING, BATTERY TERMINAL (+-)
Y1	411 022 7906	SCR TPG PAN 2X6

REMOCON (TRANSMIT) P.C.BOARD ASSY

Ref. No.	Part No.	Description
71	614 216 6727	ASSY, PCB, REMOCON
	614 213 5419	SPRING, COIL, BATTERY TERMINAL (+)
	614 213 5426	SPRING, COIL, BATTERY TERMINAL (-)
X1	614 213 5327	SERAMIC RESONATOR, CSB455E
IC1	410 070 4608	IC UPD6125AG-598
Q1	405 021 0907	TR 2SD1012H-SPA
LED1	408 010 4207	LED SIR-56ST3

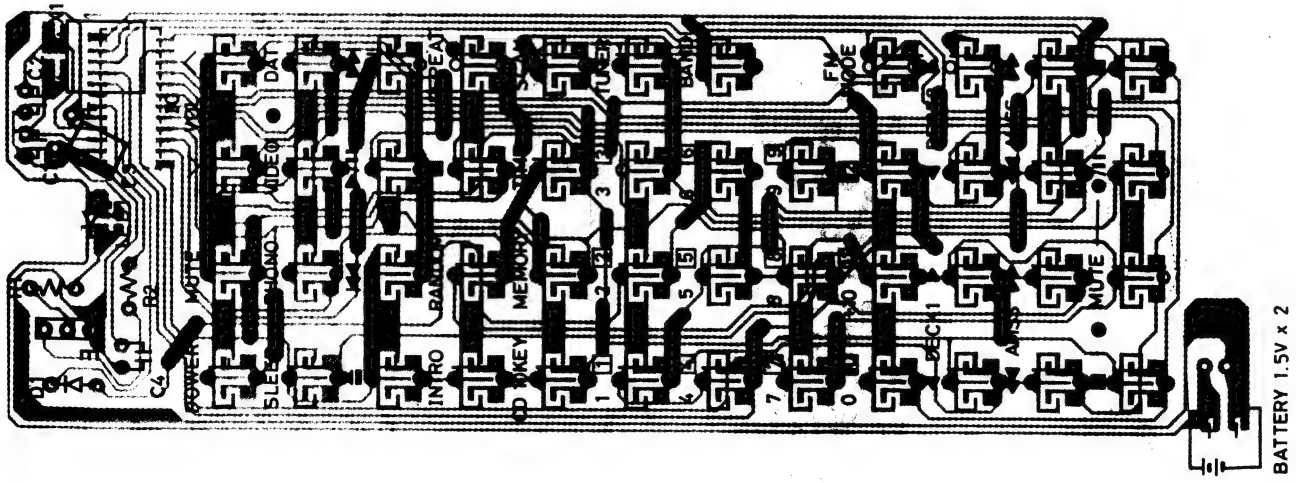
RB-SF5/SS ····· 149-501-01

16. SCHEMATIC DIAGRAM (REMOTE CONTROLLER)

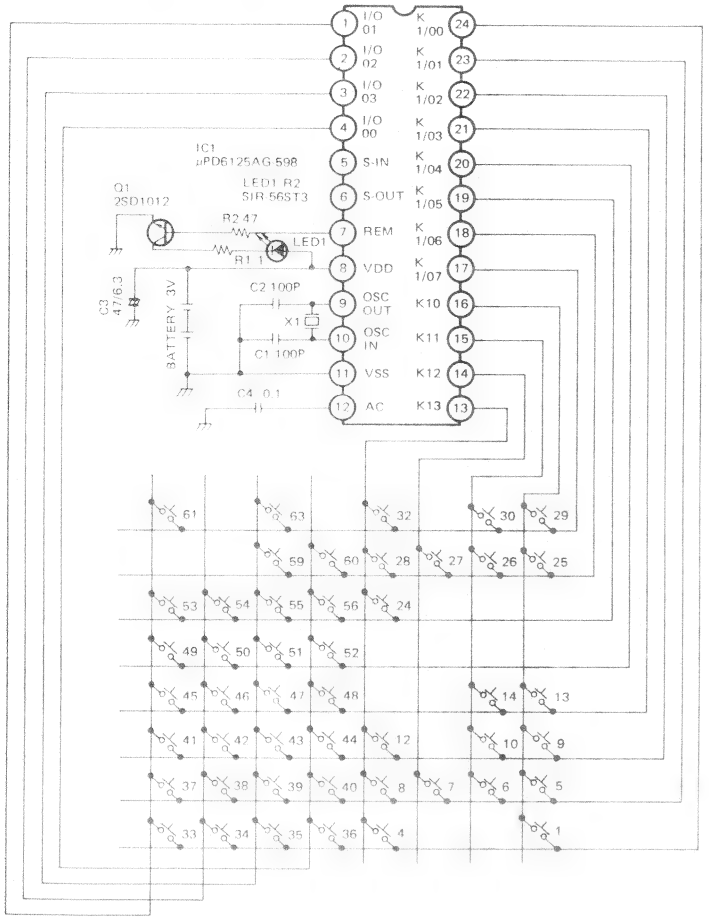


Key No.	FUNCTION	Key No.	FUNCTION
1	REPEAT	38	6
4	■	39	7
5	MEMORY	40	8
6	▶/II	41	9
7	⏮	42	10/0
8	⏭	43	11/+10
9	INTRO	44	12
10	RANDOM	45	DECK 1 ◀
12	▲	46	■
13	CD 10 KEY	47	DECK 1 ▶
14	TIME	48	AMSS ▶▶
24	SLEEP	49	AMSS ◀◀
25	POWER	50	■
26	VOL. ∧	51	REC MUTE
27	VOL. ∨	52	DECK 2 ▶
28	MUTE	53	AMSS ▶▶
29	VTR	54	AMSS ◀◀
30	BS/TV	55	●/II
32	DAT	56	DECK 2 ◀
33	1	59	MODE
34	2	60	SCAN
35	3	61	FM
36	4	63	TUNER
37	5		

17. WIRING DIAGRAM (REMOTE CONTROLLER)

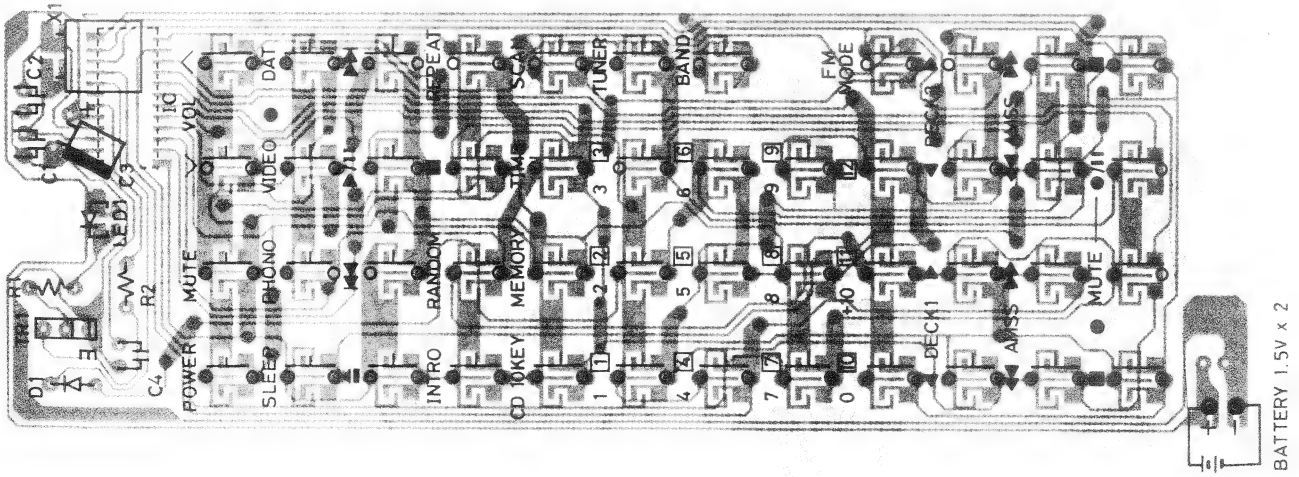


16. SCHEMATIC DIAGRAM (REMOTE CONTROLLER)

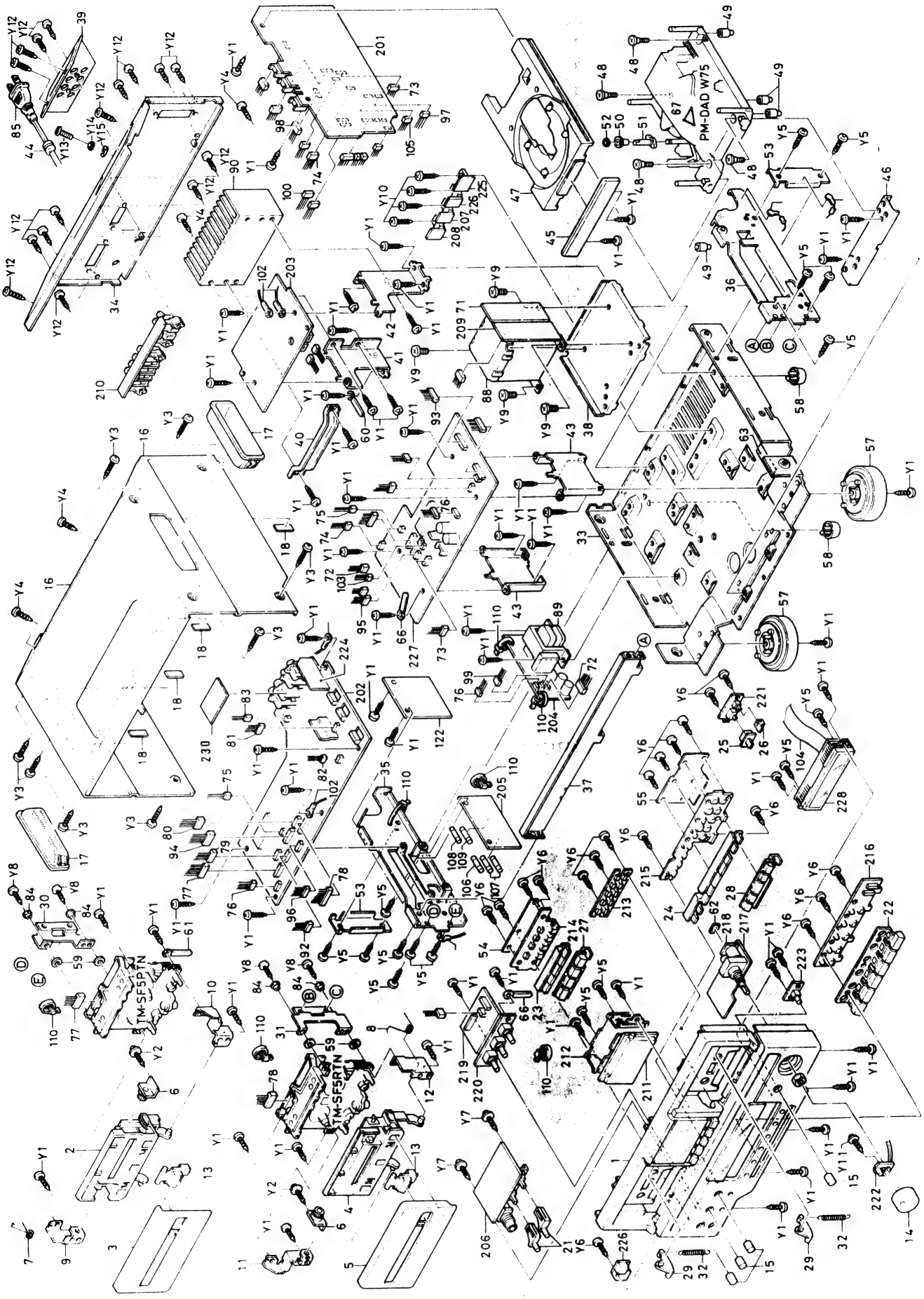


Key No.	FUNCTION	Key No.	FUNCTION
1	REPEAT	38	6
4	■	39	7
5	MEMORY	40	8
6	►/II	41	9
7	◄◄	42	10/0
8	►►	43	11/+10
9	INTRO	44	12
10	RANDOM	45	DECK 1 ◄
12	▲	46	■
13	CD 10 KEY	47	DECK 1 ►
14	TIME	48	AMSS ►►
24	SLEEP	49	AMSS ◄◄
25	POWER	50	■
26	VOL. ∧	51	REC MUTE
27	VOL. ∨	52	DECK 2 ►
28	MUTE	53	AMSS ►►
29	VTR	54	AMSS ◄◄
30	BS/TV	55	●/II
32	DAT	56	DECK 2 ◄
33	1	59	MODE
34	2	60	SCAN
35	3	61	FM
36	4	63	TUNER
37	5		

17. WIRING DIAGRAM (REMOTE CONTROLLER)



18. EXPLODED VIEW (CABINET & CHASSIS)



PARTS LIST

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.
Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

CAUTION : Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.

PACKING & ACCESSORIES

Ref. No.	Part No.	Description
	614 215 5653	INNER CARTON (W.GERMANY)
	614 215 5644	INNER CARTON (SPAIN)
	614 214 4787	INNER CARTON (ITALY)
	614 215 5639	INNER CARTON(EUROPE)
	614 208 7862	PAD
	614 208 7879	PAD
	614 216 1050	POLY COVER
	614 215 5745	INSTRUCTION MANUAL (W.GERMANY)
	614 215 5738	INSTRUCTION MANUAL (SPAIN)
	614 215 5707	INSTRUCTION MANUAL (ITALY)
	614 215 5721	INSTRUCTION MANUAL(EUROPE)
	614 176 3231	INNER POLYE COVER
	614 191 3681	LABEL
	614 217 9598	PAD, PLAIN
	411 083 9307	SCR WOOD RND 3.1X13
	614 176 1039	INNER POLYE COVER
	614 186 2682	NOTICE (W.GERMANY)
	614 208 7565	LOOP ANT
	614 023 7344	ANT, ACCESSORY
	614 212 2341	MOUNT-E, LOOP ANT BRACKET
	614 218 7166	LABEL, POP

CABINET & CHASSIS

Ref. No.	Part No.	Description
1	614 214 4558	ASSY, PANEL, FRONT
2	614 208 8388	ASSY, LID, CASSETTE, TAPE A
3	614 214 4534	ASSY, COVER, TAPE A
4	614 208 8395	ASSY, LID, CASSETTE, TAPE B
5	614 208 8371	ASSY, COVER, TAPE B
6	614 069 0378	GEAR ASSY
7	614 208 9613	SPRING, WIRE, TAPE A
8	614 208 9620	SPRING, WIRE, TAPE B
9	614 208 9309	BRACKET-M, LID A, LEFT
10	614 208 9316	BRACKET-M, LID A, RIGHT
11	614 208 9323	BRACKET-M, LID B, LEFT
12	614 208 9330	BRACKET-M, LID B, RIGHT
13	614 208 8869	KNOB, LEVER, EJECT
14	614 208 8814	KNOB, ROTARY, VOLUME
15	614 208 8821	KNOB, ROTARY, BASS & TREBLE
16	614 214 4473	ASSY, CABINET
17	614 210 7744	HANDLE, CABI SIDE
18	614 212 3478	SHEET, CABINET 10X10X0.3T

CHASSIS

Ref. No.	Part No.	Description
21	614 208 9002	BUTTON, SPEAKER
22	614 214 4688	BUTTON, FUNCTION
23	614 208 9026	BUTTON, TAPE A
24	614 208 9033	BUTTON, TAPE B
25	614 208 8838	KNOB, SLIDE, DIRECTION
26	614 208 9040	BUTTON, DOLBY
27	614 208 8432	ASSY, BUTTON, POWER ETC
28	614 208 9057	BUTTON, CD
29	614 208 9576	LEVER, DECK EJECT
30	614 208 9361	BRACKET-M, LEFT
31	614 208 9378	BRACKET-M, RIGHT
32	614 208 9606	SPRING, TENS, EJECT LEVER
33	614 208 8494	CABINET, BOTTOM
34	614 214 4640	PANEL, REAR
35	614 208 9538	REINFORCEMENT, LEFT
36	614 208 9545	REINFORCEMENT, RIGHT
37	614 208 9552	REINFORCEMENT, FRONT
38	614 208 9255	BRACKET-E, P.T
39	614 214 4626	COVER, RCA SOCKET
40	614 207 3513	BRACKET-E, POWER IC
41	614 208 9262	BRACKET-E, LEFT HEAT SINK
42	614 208 9279	BRACKET-E, RIGHT HEAT SINK
43	614 211 6999	BRACKET-E, CD PCB
44	614 129 1901	FIXER, AC CORD
45	614 208 8609	ESCUTCHEON, CD
46	614 208 9385	BRACKET-M, CD MECH
47	614 203 3425	SLIDE ASSY, TRAY
48	412 004 5705	SPECIAL SCREW, CD MECH
49	614 195 6978	RUBBER CUSHION, CD MECH
50	614 134 8858	GEAR, TRAY
51	614 134 8865	GEAR, TRAY
52	412 027 1906	SPECIAL WASHER, TRAY
53	614 211 7002	BRACKET-M, REINFORCEMENT (33,36)-BOTTOM (33)
54	614 208 9491	SHIELD, MECH (A) SW PCB
55	614 208 9507	SHIELD, MECH (B) SW PCB
57	614 210 6877	ASSY, FOOT, FRONT
58	614 210 6884	ASSY, FOOT, BACK
59	412 033 9705	SPECIAL WASHER, 4X7X0.5T, TAPE MECH
60	614 130 0382	LUG
61	614 213 8540	LUG, LEAD FIX
62	614 125 6443	CUSHION, 15X25X3T
66	614 129 9136	LUG, LEAD FIX
67	614 191 3698	LABEL, LASER CAUTION, MECHANISM
63	614 191 8709	LABEL, LASER CAUTION
69	614 110 8742	SHEET, 20X20X0.3T
121	614 125 0236	CUSHION, 5X15, BOTTOM
122	614 217 1615	INSULATOR, 0.5T PVC
	614 213 8434	SHEET, PVC
	614 213 8441	SHEET, PVC
	614 213 8700	SHEET, 0.3T PVC

FIXING PARTS

Ref. No.	Part No.	Description
Y1	411 021 6405	SCR S-TPG BIN 3X8
Y2	412 003 1708	SPECIAL SCREW
Y3	411 027 4108	SCR S-TPG BIN 4X8
Y4	411 021 6603	SCR S-TPG BIN 3X8
Y5	411 021 5705	SCR S-TPG BIN 3X6
Y6	411 021 3107	SCR S-TPG BIN 2.6X8
Y7	411 020 9902	SCR S-TPG BRZ + FLG 3X8
Y8	411 021 4005	SCR S-TPG BIN 3X12
Y9	411 001 4209	SCR S-TPG BIN 4X8
Y10	411 001 1901	SCR S-TPG BIN 3X6
Y11	411 024 3807	SCR S-TPG PAN + FLG 2X8
Y12	411 021 3701	SCR S-TPG BIN 3X10

Ref. No.	Part No.	Description
Y13	412 003 2804	SPECIAL SCREW
Y14	411 008 0402	WASHER OUT TW 3
Y15	411 105 9704	WASHER Z 3X10X1
Y18	411 021 1806	SCR S-TPG BIN 2.6X10

ELECTRICAL PARTS

Ref. No.	Part No.	Description
71	⚠ 614 216 4594	PCB, P.T PRI (SPAIN/EUROPE)
	⚠ 614 215 8760	PCB, P.T PRI (ITALY/W.GERMANY)
72	614 211 6135	SOCKET, 3P CD-SUB P.T
73	614 211 6142	SOCKET, 7P CD-TUNER
74	614 213 1619	SOCKET, 3P CD-AMP
75	614 211 6166	SOCKET, 2P CD-DECK
76	614 211 6173	SOCKET, 4P SUB P.T-DECK
77	614 208 4458	SOCKET, 9P A MECH-DECK
78	614 208 4465	SOCKET, 12P B MECH-DECK
79	614 208 4472	SOCKET, TAPE A MOTOR
80	614 208 4489	SOCKET, TAPE B MOTOR
81	614 208 4373	SOCKET, 5P R/P HEAD
82	614 208 4366	SOCKET, 3P P HEAD
83	614 208 4380	SOCKET, 2P E HEAD
84	614 109 3840	BASE, M PUSH
85	614 215 8012	SOCKET, PHONO DC
88	⚠ 614 215 3475	POWER TRANS, MAIN
89	⚠ 614 215 3482	POWER TRANS, SUB
90	614 211 8528	HEAT SINK
91	⚠ 614 023 3100	POWER CORD
or	⚠ 614 203 0493	POWER CORD
92	614 208 4397	SOCKET, TAPE A MICON
93	614 208 4427	SOCKET, CD SW MICON
94	614 208 4403	SOCKET, 11P SW MICON
95	614 208 4434	SOCKET, CD SW
96	614 208 4441	SOCKET, DOLBY DIR SW
97	614 211 6272	SOCKET, FUNC, SW
98	614 211 6265	SOCKET, FUNC, LED
99	614 211 6296	SOCKET, 5P SUB P.T
100	614 211 6388	SOCKET, BALANCE
101	614 019 7648	SOCKET
102	614 051 9785	LUG, EARTH
or	614 051 9785	LUG
103	614 211 6111	SOCKET, 3P TO MAIN
104	614 212 7704	CORD, FL
105	614 211 6364	SOCKET, CN401
	614 086 2164	COVER, C901
F30	614 051 9785	LUG, C30 FTZ
F601	423 006 7208	FUSE 250V 3.15A
F701	423 005 9500	FUSE 250V 2A
F801	423 005 9500	FUSE 250V 2A
F901	423 005 6301	FUSE 250V 1.25A

TU/PRI PCB ASSY

Ref. No.	Part No.	Description
201	614 214 9164	ASSY, PCB, TU/PRI (SPAIN/EUROPE)
	614 216 0824	ASSY, PCB, TU/PRI (ITALY/W.GERMANY)
	614 116 5349	SHIELD PLATE, DIP
	614 117 1029	SHIELD PLATE, PATERN SIDE
	614 117 1036	SHIELD PLATE, PARTS SIDE
	614 017 2546	PLUG, 3P PHONO DC
	614 017 2133	PLUG, 6P PRE-MAIN DC
	614 017 2126	PLUG, 5P PRE-TONE DC
	614 017 2591	PLUG, 8P FUNC LED
	614 017 2577	PLUG, 6P FUNC SW
	614 017 2560	PLUG, 5P MUTE
	614 017 2553	PLUG, 4P FUNC
	614 017 2546	PLUG, 3P MAIN VR-PRE
	614 017 2539	PLUG, 2P VOL MOTOR

Ref. No.	Part No.	Description
	614 017 6964	TERMINAL BOARD
	614 208 2379	SOCKET, TU-DECK
	614 208 2362	SOCKET, AMP-RCA
	614 208 2355	SOCKET, AMP-DECK
JK101	614 210 2688	TERMINAL, FM (DIN)+ PUSH 2P
CT101	614 007 3683	TRIMMER, 8P
CT151	614 007 6356	TRIMMER, 11P
CT152	614 007 6332	TRIMMER, 30P
CT153	614 007 6356	TRIMMER, 11P
CT154	614 007 6332	TRIMMER, 30P
T101	614 028 6922	FILTER, FTZ
T201	614 030 3476	I.F.T, 10.7M
T202	614 030 4114	I.F.T, 10.7M
T203	614 029 3906	MX COIL
T301	614 027 7845	CHOKE, TM
T302	614 027 7845	CHOKE, TM
L101	614 034 8286	VHF COIL
L102	614 034 9870	VHF COIL
L103	614 034 9887	VHF COIL
L104	614 035 0036	VHF COIL
L105	614 028 4058	FILTER
L151	614 032 8059	ANT COIL
L152	614 216 1029	TRANS, RF
L153	614 033 8904	O.S.C COIL
L154	614 034 1003	O.S.C COIL
L201	614 028 4379	FILTER
CF201	614 030 5128	I.F FILTER
CF202	614 030 5128	I.F FILTER
CF203	614 030 5128	I.F FILTER
CF204	614 211 2939	FILTER
or	614 210 4675	FILTER
CF205	614 030 7443	I.F FILTER
or	614 210 4675	FILTER
X401	614 204 0317	CRYSTAL
S411	614 215 9828	SWITCH, TACT
SVR201	614 204 1918	SEMI V.R, 20K OHM
SVR202	614 204 1901	SEMI V.R, 10K OHM
SVR301	614 204 1901	SEMI V.R, 10K OHM
SVR302	614 204 1864	SEMI V.R, 1K OHM
P401	614 017 2553	PLUG, 4P
P402	614 017 2560	PLUG, 5P
P403	614 017 2614	PLUG, 10P
P406	614 017 2584	PLUG, 7P
TP201	614 017 6964	TERMINAL BOARD
TP202	614 017 6964	TERMINAL BOARD
TP301	614 017 6964	TERMINAL BOARD
IC201	409 016 2204	IC LA1265S
IC301	409 016 9500	IC LA3361
IC403	409 150 1002	IC LC7218, PLL
IC701	409 022 3608	IC LC7818
IC703	409 018 4909	IC LA6458S
IC901	409 114 4803	IC LB1641
Q101	405 035 8609	TR 2SK544-F
Q102	405 016 5900	TR 2SC2999-E-SPA
Q103	405 075 6009	TR 2SC930-E-CONV
Q104	405 016 5900	TR 2SC2999-E-SPA
Q105	405 035 8609	TR 2SK544-F
Q151	405 017 9600	TR 2SC3330-T
or	405 017 9709	TR 2SC3330-U
Q152	405 021 0600	TR 2SD1012-G-SPA
Q153	405 021 0600	TR 2SD1012-G-SPA
Q154	405 021 0600	TR 2SD1012-G-SPA
Q155	405 021 0600	TR 2SD1012-G-SPA
Q156	405 021 0600	TR 2SD1012-G-SPA
Q157	405 026 9004	TR 2SK222-D
Q158	405 017 9600	TR 2SC3330-T
or	405 017 9709	TR 2SC3330-U
Q201	405 037 4104	TR 2SC930-E-IF-SPA
Q202	405 017 9600	TR 2SC3330-T
or	405 017 9709	TR 2SC3330-U
Q203	405 004 4601	TR 2SA608-F-SPA
Q301	405 017 9600	TR 2SC3330-T
or	405 017 9709	TR 2SC3330-U
Q302	405 017 9600	TR 2SC3330-T

Ref. No.	Part No.	Description
Q302	405 017 9709	TR 2SC3330-U
Q351	405 004 4601	TR 2SA608-F-SPA
Q352	405 017 9600	TR 2SC3330-T
or	405 017 9709	TR 2SC3330-U
Q353	405 021 0600	TR 2SD1012-G-SPA
Q354	405 021 0600	TR 2SD1012-G-SPA
Q403	405 004 4601	TR 2SA608-F-SPA
Q404	405 004 4601	TR 2SA608-F-SPA
Q405	405 004 4601	TR 2SA608-F-SPA
Q407	405 018 0101	TR 2SC3331-T
or	405 018 0200	TR 2SC3331-U
Q431	405 026 9004	TR 2SK222-D
Q432	405 010 9607	TR 2SC1571-F-NP
Q601	405 000 0904	TR DTA114YS
Q602	405 000 0904	TR DTA114YS
Q603	405 000 3806	TR DTC114YS
Q604	405 000 3806	TR DTC114YS
Q605	405 000 3806	TR DTC114YS
Q606	405 000 3806	TR DTC114YS
Q607	405 000 3806	TR DTC114YS
Q608	405 000 3806	TR DTC114YS
Q609	405 000 0904	TR DTA114YS
Q610	405 017 9600	TR 2SC3330-T
Q611	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q612	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q614	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q615	405 004 4601	TR 2SA608-F-SPA
or	405 006 1905	TR 2SA933S-S
Q617	405 000 0904	TR DTA114YS
Q621	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q705	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q706	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q710	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q805	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q806	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q810	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q998	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
D101	408 000 0103	VA SVC211SP-B2-AUD
D102	408 000 0103	VA SVC211SP-B2-AUD
D103	408 000 0103	VA SVC211SP-B2-AUD
D104	407 007 9904	DIODE GMA01
D151	407 091 5004	VARACTOR DI SVC321SPA-C-2
D152	407 091 5004	VARACTOR DI SVC321SPA-C-2
D201	407 007 9904	DIODE GMA01
D301	407 005 4505	DIODE DS442X
D302	407 005 4505	DIODE DS442X
D401	407 005 4505	DIODE DS442X
D410	407 007 9904	DIODE GMA01
D601	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D602	407 007 9904	DIODE GMA01

Ref. No.	Part No.	Description
D602	407 012 4406	DIODE 1SS133
D603	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D604	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D605	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D606	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D607	407 005 4505	DIODE DS442X
D608	407 005 4505	DIODE DS442X
D609	407 005 4505	DIODE DS442X
D610	407 005 4505	DIODE DS442X
D611	407 005 4505	DIODE DS442X
D612	407 005 4505	DIODE DS442X
D613	407 005 4505	DIODE DS442X
D614	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D615	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D616	407 053 8104	ZENER DIODE MTZ7.5C
D618	407 005 4505	DIODE DS442X
D619	407 005 4505	DIODE DS442X
D629	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D680	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D681	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D682	407 005 4505	DIODE DS442X
D683	407 005 4505	DIODE DS442X
D684	407 005 4505	DIODE DS442X
D685	407 005 4505	DIODE DS442X
D686	407 005 4505	DIODE DS442X
D687	407 005 4505	DIODE DS442X
D688	407 005 4505	DIODE DS442X
D689	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D690	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D691	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D692	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D694	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D695	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D913	407 053 5806	ZENER DIODE MTZ4.7B
D921	407 005 4505	DIODE DS442X
D922	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
C151	403 082 2007	POLYPRO 510P J 100V
C154	403 082 2007	POLYPRO 510P J 100V
C314	403 080 5000	POLYPRO 1000P J 100V
C433	403 106 1603	NP-ELECT 1U Q 50V
R407	401 018 1209	CARBON 33 JB 1/4W
R921	⚠ 402 004 4303	FUSIBLE RES 10 J- 1/4W

DECK PCB ASSY

Ref. No.	Part No.	Description
202	614 214 3957	ASSY, PCB, DECK (SPAIN/EUROPE)
	614 215 7954	ASSY, PCB, DECK (ITALY/W.GERMANY)
	614 215 9347	HEAT SINK, 0.8T
	614 017 6964	TERMINAL BOARD
	614 012 4316	SWITCH
	614 017 2607	PLUG, 9P TAPE A SW
	614 017 2621	PLUG, 11P TAPE B SW
	614 017 2119	PLUG, 4P TAPE B MOTOR
	614 017 2119	PLUG, 4P TAPE A MOTOR

PARTS LIST

Ref. No.	Part No.	Description
	614 017 2614	PLUG, 10P TAPE A MECH
	614 017 2638	PLUG, 12P TAPE B MECH
	614 017 2553	PLUG, 4P DOLBY DIR
	614 017 2560	PLUG, 5P R/P HEAD
	614 017 2546	PLUG, 3P P HEAD
	614 017 2539	PLUG, 2P E HEAD
	614 017 2539	PLUG, 2P CD-DECK
	614 017 2553	PLUG, 4P SUB-DECK
	614 208 2270	PLUG, 9P
	614 208 2263	PLUG, 8P
	614 208 2287	PLUG, 10P
	614 214 8631	SOCKET, 4P PHONO-DECK
	614 017 2546	PLUG, 3P PHONO-POWER SOURCE
	614 020 2199	SOCKET, RCA
L501	614 029 3814	MX COIL
L551	614 029 3814	MX COIL
L601	614 212 0798	TRANS, OSC
L701	614 210 3708	INDUCTOR, FERITE, 4.7MH
L702	614 210 3722	INDUCTOR, FERITE, 6.8MH
L704	614 029 3166	MX COIL
L801	614 210 3708	INDUCTOR, FERITE, 4.7MH
L802	614 210 3722	INDUCTOR, FERITE, 6.8MH
L804	614 029 3166	MX COIL
X601	614 215 5608	CERAMIC RESONATOR, 4.19MHZ
or	614 194 2902	CERAMIC RESONATOR, 4.19MHZ
SVR601	614 203 6556	SEMI V.R, 2.2K OHM
SVR602	614 203 6556	SEMI V.R, 2.2K OHM
SVR603	614 203 6556	SEMI V.R, 2.2K OHM
SVR604	614 203 6556	SEMI V.R, 2.2K OHM
SVR605	614 203 6556	SEMI V.R, 2.2K OHM
SVR606	614 203 6617	SEMI V.R, 22K OHM
SVR701	614 203 6594	SEMI V.R, 10K OHM
SVR702	614 203 6594	SEMI V.R, 10K OHM
SVR703	614 203 6594	SEMI V.R, 10K OHM
SVR704	614 203 6655	SEMI V.R, 100K OHM
SVR801	614 203 6594	SEMI V.R, 10K OHM
SVR802	614 203 6594	SEMI V.R, 10K OHM
SVR803	614 203 6594	SEMI V.R, 10K OHM
SVR804	614 203 6655	SEMI V.R, 100K OHM
RA601	614 004 9015	RESISTOR, 10K
or	614 209 3764	RESISTOR, 10KX12
or	614 217 1370	RESISTOR, 10KX12
RA602	614 004 6625	RESISTOR, 10K
or	614 209 3603	RESISTOR, 10KX4
or	614 217 1295	RESISTOR, 10KX4
RA603	614 004 6625	RESISTOR, 10K
or	614 209 3603	RESISTOR, 10KX4
or	614 217 1295	RESISTOR, 10KX4
RA604	614 004 6328	RESISTOR, 10K
or	614 209 3580	RESISTOR, 10KX3
or	614 217 1288	RESISTOR, 10KX3
RA605	614 004 7226	RESISTOR, 10K
or	614 209 3641	RESISTOR, 10KX6
or	614 217 1318	RESISTOR, 10KX6
IC501	409 119 9803	IC CXA1101P
IC601	410 067 9500	IC LC66508B-4119, DECK MICON
IC602	409 016 5502	IC LA2000
IC603	⚠ 614 002 3275	IC-PROTECTOR ICP-F15
IC604	⚠ 614 002 3275	IC-PROTECTOR ICP-F15
IC701	409 002 4700	IC BA3416BL
IC702	409 016 8701	IC LA3220
Q501	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q502	405 033 6805	TR 2SD1468S-S
Q551	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q552	405 033 6805	TR 2SD1468S-S
Q601	405 004 5103	TR 2SA608-G-SPA
Q602	405 000 3806	TR DTC114YS
Q603	405 000 3400	TR DTC114TS
Q604	405 000 3806	TR DTC114YS

Ref. No.	Part No.	Description
Q606	405 000 3400	TR DTC114TS
Q607	405 000 3400	TR DTC114TS
Q608	405 000 3400	TR DTC114TS
Q609	405 000 3400	TR DTC114TS
Q610	405 023 5306	TR 2SD400-F-MP
Q611	405 000 3806	TR DTC114YS
Q612	405 018 0200	TR 2SC3331-U
Q613	405 018 0200	TR 2SC3331-U
Q614	405 000 3806	TR DTC114YS
Q615	405 000 0508	TR DTA114ES
Q616	405 001 7704	TR 2SA1016-F
Q617	405 020 9604	TR 2SD1011-R
Q618	405 020 9604	TR 2SD1011-R
Q619	405 020 9604	TR 2SD1011-R
Q620	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q621	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q622	405 000 3400	TR DTC114TS
Q623	405 000 3400	TR DTC114TS
Q624	405 000 3400	TR DTC114TS
Q625	405 000 3400	TR DTC114TS
Q626	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q627	405 000 0508	TR DTA114ES
Q628	405 000 3806	TR DTC114YS
Q629	405 000 0508	TR DTA114ES
Q630	405 000 3806	TR DTC114YS
Q631	405 007 6701	TR 2SB598-F-NP
Q632	405 007 6701	TR 2SB598-F-NP
Q633	405 004 5103	TR 2SA608-G-SPA
Q634	405 007 6701	TR 2SB598-F-NP
Q635	405 004 5103	TR 2SA608-G-SPA
Q636	405 007 6701	TR 2SB598-F-NP
Q637	405 007 6701	TR 2SB598-F-NP
Q638	405 007 6701	TR 2SB598-F-NP
Q639	405 000 3400	TR DTC114TS
Q640	405 000 3400	TR DTC114TS
Q641	405 000 3400	TR DTC114TS
Q642	405 000 3806	TR DTC114YS
Q648	405 017 9600	TR 2SC3330-T
Q649	405 017 9600	TR 2SC3330-T
Q701	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q702	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q703	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q704	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q705	405 033 6805	TR 2SD1468S-S
Q706	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q707	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q708	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q709	405 033 6805	TR 2SD1468S-S
Q801	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q802	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U

Ref. No.	Part No.	Description
Q803	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q804	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q805	405 033 6805	TR 2SD1468S-S
Q806	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q807	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q808	405 017 9600	TR 2SC3330-T
or	405 011 7503	TR 2SC1740-S
or	405 017 9709	TR 2SC3330-U
Q809	405 033 6805	TR 2SD1468S-S
Q973	⚠ 409 026 8500	IC L78M05
D603	407 012 4406	DIODE 1SS133
D604	407 012 4406	DIODE 1SS133
D605	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D606	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D628	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D629	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D630	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D631	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D632	407 012 4406	DIODE 1SS133
D633	407 012 4406	DIODE 1SS133
D634	407 012 4406	DIODE 1SS133
D635	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D701	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D702	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D801	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D802	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
C608	403 080 6106	POLYPRO 0.01U J 100V
R624	⚠ 402 004 6208	FUSIBLE RES 3.3 J- 1/4W
R971	⚠ 402 004 4303	FUSIBLE RES 10 J- 1/4W
R972	⚠ 402 004 7601	FUSIBLE RES 5.6 J- 1/4W

MAIN AMP PCB ASSY

Ref. No.	Part No.	Description
203	614 216 3962	ASSY, PCB, MAIN AMP (SPAIN/EUROPE)
	614 215 8197	ASSY, PCB, MAIN AMP (ITALY/W.GERMANY)
	614 020 1246	SOCKET, 5P
	614 211 6227	SOCKET, MAIN-PRE DC
	614 020 6586	SOCKET, 6P
	614 017 2256	PLUG, 3P
IC704	409 018 4909	IC LA6458S
IC705	⚠ 409 185 2708	IC STK4157MK2
Q618	405 017 9709	TR 2SC3330-U
Q619	405 017 9709	TR 2SC3330-U
Q703	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q803	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q901	405 017 9600	TR 2SC3330-T

Ref. No.	Part No.	Description
Q901	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q906	405 000 3806	TR DTC114YS
Q907	405 000 3806	TR DTC114YS
D901	⚠ 407 077 7800	DIODE RBV-402LF-A
D902	⚠ 407 098 3300	DIODE RL153-BF-S2
D903	⚠ 407 098 3300	DIODE RL153-BF-S2
D904	⚠ 407 098 3300	DIODE RL153-BF-S2
D905	⚠ 407 098 3300	DIODE RL153-BF-S2
D912	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D913	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D919	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D929	407 007 9904	DIODE GMA01
D930	407 007 9904	DIODE GMA01
C902	403 057 3800	POLYESTER 0.1U M 50V
C903	403 057 3800	POLYESTER 0.1U M 50V
C906	403 057 3800	POLYESTER 0.1U M 50V
C943	403 057 3800	POLYESTER 0.1U M 50V
R706	401 009 6404	CARBON 3.3K JB 1/2W
R901	⚠ 402 039 3708	RESISTOR 0.33 J- 1W
R997	⚠ 401 012 3001	CARBON 10 JB 1/4W
R998	⚠ 401 012 3001	CARBON 10 JB 1/4W

SUB P.T PCB ASSY

Ref. No.	Part No.	Description
204	614 217 9512	ASSY, PCB, SUB P.T (W.GERMANY)
	614 216 3979	ASSY, PCB, SUB P.T (SPAIN/EUROPE)
	614 215 8210	ASSY, PCB, SUB P.T (ITALY)
	⚠ 614 123 2089	TERMINAL
	614 017 2560	PLUG, 5P
	614 017 2553	PLUG, 4P
	614 017 2546	PLUG, 3P
	⚠ 614 211 7606	RELAY, POWER
Q902	⚠ 405 004 5004	TR 2SA608-G-NP
Q905	⚠ 405 023 2602	TR 2SD325-F
D906	⚠ 407 004 9105	DIODE DSF10C
D907	⚠ 407 004 9105	DIODE DSF10C
D908	⚠ 407 004 9105	DIODE DSF10C
D909	407 050 0507	ZENER DIODE GZA27Z
D910	407 050 2105	ZENER DIODE GZA30X
D911	407 053 7206	ZENER DIODE MTZ6.2C
D915	407 053 6704	ZENER DIODE MTZ5.6B
D918	407 007 9904	DIODE GMA01
D928	407 005 4505	DIODE DS442X

FUSE PCB ASSY

Ref. No.	Part No.	Description
205	614 217 9529	ASSY, PCB, SUB P.T (W.GERMANY)
	614 216 3986	ASSY, PCB, FUSE (SPAIN/EUROPE)
	614 215 8234	ASSY, PCB, FUSE (ITALY)
	614 208 4540	FUSE HOLDER
or	614 123 0023	BRACKET FUSE
	614 020 1246	SOCKET, 5P

SP SW PCB ASSY

Ref. No.	Part No.	Description
206	614 217 9536	ASSY, PCB, SP SW (W.GERMANY)
	614 215 3253	ASSY, PCB, SP SW (SPAIN/EUROPE)
	614 215 3260	ASSY, PCB, SP SW (ITALY)
	614 020 2281	SOCKET, HP
	614 020 1222	SOCKET, 3P
	614 020 1239	SOCKET, 4P

PARTS LIST

Ref. No.	Part No.	Description
	614 017 3819	PLUG, 2P FL WOOFER
	614 020 1222	SOCKET, 3P TO MAIN VR
	614 017 2102	PLUG, 3P TO MAIN VR
	614 215 3567	SWITCH, PUSH, SP SW
D631	407 013 2203	DIODE 1S188AM
or	407 013 2401	DIODE 1S188FM1
D634	407 013 2203	DIODE 1S188AM
or	407 013 2401	DIODE 1S188FM1
C632	403 057 2803	POLYESTER 0.1U K 50V
C731	403 057 2803	POLYESTER 0.1U K 50V
C751	403 057 2803	POLYESTER 0.1U K 50V
C831	403 057 2803	POLYESTER 0.1U K 50V
C851	403 057 2803	POLYESTER 0.1U K 50V

REG 1 PCB ASSY

Ref. No.	Part No.	Description
207	614 216 3993	ASSY, PCB, REG 1 (SPAIN/EUROPE)
	614 215 8265	ASSY, PCB, REG 1 (ITALY/W.GERMANY)
	614 020 6555	SOCKET, 3P
IC902	⚠ 409 178 4108	IC NJM78M15FA

REG 2 PCB ASSY

Ref. No.	Part No.	Description
208	614 216 4006	ASSY, PCB, REG 2 (SPAIN/EUROPE)
	614 215 8289	ASSY, PCB, REG 2 (ITALY/W.GERMANY)
	614 020 6555	SOCKET, 3P
IC903	⚠ 409 178 4207	IC NJM79M15FA

P.T SEC PCB ASSY

Ref. No.	Part No.	Description
	614 020 1246	SOCKET, 5P
209	614 217 9543	ASSY, PCB, P.T SEC (W.GERMANY)
	614 216 4013	ASSY, PCB, P.T SEC (SPAIN/EUROPE)
	614 215 8302	ASSY, PCB, P.T SEC (ITALY/W.GERMANY)
	614 211 6371	SOCKET
IC990	⚠ 614 002 3312	IC-PROTECTOR ICP-F50
IC991	⚠ 614 002 3312	IC-PROTECTOR ICP-F50

SP-TREM PCB ASSY

Ref. No.	Part No.	Description
210	614 215 3277	ASSY, PCB, SP-TREM (SPAIN/EUROPE)
	614 215 3284	ASSY, PCB, SP-TREM (ITALY/W.GERMANY)
	614 020 1239	SOCKET, 4P
	614 020 1215	SOCKET, 2P
	⚠ 614 215 8043	TERMINAL, L/R-CH FTZ
	⚠ 614 215 8050	TERMINAL, C-CH
C1	403 062 5103	POLYESTER 5600P K 50V
C2	403 057 0403	POLYESTER 0.01U K 50V
C3	403 062 5103	POLYESTER 5600P K 50V
C4	403 057 0403	POLYESTER 0.01U K 50V
C5	403 062 5103	POLYESTER 5600P K 50V
C6	403 057 0403	POLYESTER 0.01U K 50V

FL-AMP PCB ASSY

Ref. No.	Part No.	Description
211	614 216 4020	ASSY, PCB, FL-AMP (SPAIN/EUROPE)
	614 215 8333	ASSY, PCB, FL-AMP (ITALY/W.GERMANY)
	614 035 4928	SOCKET, 3P
	614 211 6302	SOCKET, TO PRE
	614 211 6319	SOCKET, TO MAIN
	614 017 3840	PLUG, 5P
IC706	409 118 0603	IC LC7566
Q903	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q904	405 000 0904	TR DTA114YS
D632	407 053 6308	ZENER DIODE MTZ5.1B
D702	407 053 6308	ZENER DIODE MTZ5.1B
D802	407 053 6308	ZENER DIODE MTZ5.1B
D914	407 050 0903	ZENER DIODE GZA3.3X
D919	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
R934	614 004 7903	RESISTOR, 100K
or	614 209 3606	RESISTOR, 100X8
or	614 218 0404	RESISTOR, 100X8
R935	614 004 7903	RESISTOR, 100K
or	614 209 3606	RESISTOR, 100KX8
or	614 218 0404	RESISTOR, 100X8

TU-FL PCB ASSY

Ref. No.	Part No.	Description
	614 208 9224	BRACKET-E
212	614 216 5379	ASSY, PCB, TU FL (SPAIN/EUROPE)
	614 216 0770	ASSY, PCB, TU FL (ITALY/W.GERMANY)
	614 051 9785	LUG
	614 126 4363	CUSHION, TU FL
	614 208 7831	FLUORESCENT TUBE
CT401	614 007 6332	TRIMMER, 30P
L401	614 028 4256	FILTER, CHOKE
X402	614 208 9682	RESONATOR
CN402	614 211 6357	SOCKET, 5P
CN403	614 211 6326	SOCKET, 10P
CN407	614 211 6340	SOCKET, 4P
CN408	614 211 6333	SOCKET, 5P
CN409	614 035 4928	SOCKET, 3P
P404	614 017 3833	PLUG, 4P
TP401	614 017 7961	TERMINAL BOARD
TP402	614 017 7961	TERMINAL BOARD
IC404	410 064 8902	IC HD404708A30S
D402	407 007 9904	DIODE GMA01
D403	407 007 9904	DIODE GMA01
D404	407 007 9904	DIODE GMA01
C408	403 033 2506	CERAMIC 8.2P K 50V
C410	403 001 1906	CERAMIC 0.01U M 16V
C411	403 041 9603	ELECT 10U M 16V
C413	403 003 3304	CERAMIC 0.022U M 25V
C414	403 069 1207	CERAMIC 1000P K 50V
R425	401 024 7707	CARBON 100K JA 1/6W

TU SW PCB ASSY

Ref. No.	Part No.	Description
213	614 216 5386	ASSY, PCB, TU SW (SPAIN/EUROPE)
	614 216 0794	ASSY, PCB, TU SW (ITALY/W.GERMANY)
S401	614 023 8082	SWITCH
S402	614 023 8082	SWITCH
S403	614 023 8082	SWITCH
S404	614 023 8082	SWITCH
S405	614 023 8082	SWITCH
S406	614 023 8082	SWITCH
S407	614 023 8082	SWITCH

Ref. No.	Part No.	Description
S408	614 023 8082	SWITCH
S409	614 023 8082	SWITCH
S410	614 023 8082	SWITCH
D405	407 007 9904	DIODE GMA01
D406	407 007 9904	DIODE GMA01
D407	407 007 9904	DIODE GMA01
D408	407 007 9904	DIODE GMA01

MECH SW A PCB ASSY

Ref. No.	Part No.	Description
214	614 215 9507	ASSY, PCB, MECH SW A (SPAIN/EUROPE)
	614 215 9521	ASSY, PCB, MECH SW A (ITALY/W.GERMANY)
	614 208 9569	SPACER, LED
	614 017 3895	PLUG, 10P
	614 017 3857	PLUG, 6P
S601	614 018 9018	SWITCH
S602	614 018 9018	SWITCH
S603	614 023 8082	SWITCH
S604	614 018 9018	SWITCH
S605	614 023 8082	SWITCH
S606	614 023 8082	SWITCH
S607	614 018 9018	SWITCH
S608	614 018 9018	SWITCH
S609	614 018 9018	SWITCH
S901	614 018 9018	SWITCH
D610	407 012 4406	DIODE 1SS133
D611	407 012 4406	DIODE 1SS133
D612	407 012 4406	DIODE 1SS133
D613	407 012 4406	DIODE 1SS133
D614	407 012 4406	DIODE 1SS133
D615	407 012 4406	DIODE 1SS133
D616	407 012 4406	DIODE 1SS133
D617	407 012 4406	DIODE 1SS133
D618	407 012 4406	DIODE 1SS133
D639	407 118 0104	LED SLR-34MC3F-N
or	407 118 0205	LED SLR-34MC3F-P
or	407 118 1903	LED SLR-34MC3F-Q
D640	407 117 9702	LED SLR-34VC3F-N
or	407 117 9603	LED SLR-34VC3F-M
or	407 117 9801	LED SLR-34VC3F-P
D641	407 118 0104	LED SLR-34MC3F-N
or	407 118 0205	LED SLR-34MC3F-P
or	407 118 1903	LED SLR-34MC3F-Q

MECH SW B PCB ASSY

Ref. No.	Part No.	Description
215	614 215 9538	ASSY, PCB, MECH SW B (SPAIN/EUROPE)
	614 215 9552	ASSY, PCB, MECH SW B (ITALY/W.GERMANY)
	614 017 2621	PLUG, 11P
	614 017 2584	PLUG, 7P
	614 208 9569	SPACER, LED
S610	614 023 8082	SWITCH
S611	614 023 8082	SWITCH
S612	614 023 8082	SWITCH
S613	614 023 8082	SWITCH
S614	614 018 9018	SWITCH
S615	614 023 8082	SWITCH
S616	614 023 8082	SWITCH
S617	614 018 9018	SWITCH
S618	614 018 9018	SWITCH
S619	614 018 9018	SWITCH
S620	614 018 9018	SWITCH
S621	614 018 9018	SWITCH
S622	614 018 9018	SWITCH
S623	614 018 9018	SWITCH

Ref. No.	Part No.	Description
D619	407 012 4406	DIODE 1SS133
D620	407 012 4406	DIODE 1SS133
D621	407 012 4406	DIODE 1SS133
D622	407 012 4406	DIODE 1SS133
D623	407 012 4406	DIODE 1SS133
D625	407 012 4406	DIODE 1SS133
D626	407 012 4406	DIODE 1SS133
D627	407 012 4406	DIODE 1SS133
D642	407 012 4406	DIODE 1SS133
D643	407 118 0104	LED SLR-34MC3F-N
or	407 118 0205	LED SLR-34MC3F-P
or	407 118 1903	LED SLR-34MC3F-Q
D644	407 118 0104	LED SLR-34MC3F-N
or	407 118 0205	LED SLR-34MC3F-P
or	407 118 1903	LED SLR-34MC3F-Q
D645	407 117 9702	LED SLR-34VC3F-N
or	407 117 9603	LED SLR-34VC3F-M
or	407 117 9801	LED SLR-34VC3F-P

FUNCTION SW PCB ASSY

Ref. No.	Part No.	Description
216	614 216 4037	ASSY, PCB, FUNCTION SW (SPAIN/EUROPE)
	614 215 8357	ASSY, PCB, FUNCTION SW (ITALY/W.GERMANY)
	614 017 2577	PLUG, 6P
	614 017 2591	PLUG, 8P
	614 018 9056	SWITCH, FUNCTION
Q620	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
D991	407 118 0401	LED SLR-55DC3F-M
or	407 118 0500	LED SLR-55DC3F-N
D992	407 118 0401	LED SLR-55DC3F-M
or	407 118 0500	LED SLR-55DC3F-N
D993	407 118 0401	LED SLR-55DC3F-M
or	407 118 0500	LED SLR-55DC3F-N
D994	407 118 0401	LED SLR-55DC3F-M
or	407 118 0500	LED SLR-55DC3F-N
D995	407 118 0401	LED SLR-55DC3F-M
or	407 118 0500	LED SLR-55DC3F-N
D996	407 118 0401	LED SLR-55DC3F-M
or	407 118 0500	LED SLR-55DC3F-N
R686	614 004 0007	RESISTOR
R687	614 212 5004	RESISTOR

MAIN VR PCB ASSY

Ref. No.	Part No.	Description
217	614 216 4044	ASSY, PCB, MAIN VR (SPAIN/EUROPE)
	614 215 8371	ASSY, PCB, MAIN VR (ITALY/W.GERMANY)
	614 215 9071	SOCKET, SP SW
	614 215 8029	SOCKET, SP SW
	614 211 6395	SOCKET, MAIN VR-MAIN AMP
	614 211 6197	SOCKET, MAIN VOL-PRE
	614 017 2102	PLUG, 3P PRE LINE IN
	614 208 7770	VR, ROTARY, MAIN VOL
Q702	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q704	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q802	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL
Q804	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 012 1807	TR 2SC1815-BL

Ref. No.	Part No.	Description
D924	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D997	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133

WOOFER PCB ASSY

Ref. No.	Part No.	Description
218	614 216 4051	ASSY, PCB, WOOFER(SPAIN/EUROPE)
	614 215 8395	ASSY, PCB, WOOFER (ITALY/W.GERMANY)
	614 208 7794	VR, ROTARY, 100K OHM
	614 211 6234	SOCKET

BASS/TRE-1 PCB ASSY

Ref. No.	Part No.	Description
219	614 215 3291	ASSY, PCB, BASS/TRE-1 (SPAIN/EUROPE)
	614 215 8418	ASSY, PCB, BASS/TRE-1 (ITALY/W.GERMANY)
	614 017 2546	PLUG, 3P FL
	614 017 2157	PLUG, 8P
IC702	409 018 4909	IC LA6458S
D701	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D705	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D801	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D805	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133

BASS/TRE-2 PCB ASSY

Ref. No.	Part No.	Description
220	614 216 4068	ASSY, PCB, BASS/TRE-2 (SPAIN/EUROPE)
	614 215 8432	ASSY, PCB, BASS/TRE-2 (ITALY/W.GERMANY)
	614 208 7787	VR, ROTARY, 100K MID/HIGH
	614 211 8184	VR, ROTARY, 250K BALANCE

DOLBY/DIR PCB ASSY

Ref. No.	Part No.	Description
221	614 215 9569	ASSY, PCB, DOLBY/DIR (SPAIN/EUROPE)
	614 215 9583	ASSY, PCB, DOLBY/DIR (ITALY/W.GERMANY)
	614 017 2553	PLUG, 4P
	614 024 2416	SWITCH, TIMER
	614 207 5104	SWITCH, PUSH, DOLBY

VR LED PCB ASSY

Ref. No.	Part No.	Description
222	614 216 4075	ASSY, PCB, VR LED (SPAIN/EUROPE)
	614 215 8456	ASSY, PCB, VR LED (ITALY/W.GERMANY)
	614 211 6289	SOCKET, VOL LED
	407 118 6908	LED SLC22DU5F-G, 2D OR, VOL
	407 118 7004	LED SLC22DU5F-H, 2D OR, VOL

MAIN VR 2 PCB ASSY

Ref. No.	Part No.	Description
223	614 216 4976	ASSY, PCB, MAIN VR 2 (SPAIN/EUROPE)
	614 215 8470.	ASSY, PCB, MAIN VR 2 (ITALY/W.GERMANY)
	614 211 6258	SOCKET
L901	614 027 9214	CHOKE
or	614 027 9214	CHOKE COIL
C925	403 057 3800	POLYESTER 0.1U M 50V
C999	403 086 2607	NP-ELECT 1U M 50V

PHONO AMP PCB ASSY

Ref. No.	Part No.	Description
224	614 215 1754	ASSY, PCB, PHONO AMP (SPAIN/EUROPE)
	614 215 7961	ASSY, PCB, PHONO AMP (ITALY/W.GERMANY)
	614 214 8624	PLUG, 4P
IC740	409 018 4909	IC LA6458S

+ 12 MOTOR PCB ASSY

Ref. No.	Part No.	Description
225	614 216 4082	ASSY, PCB, + 12 MOTOR (SPAIN/EUROPE)
	614 215 8494	ASSY, PCB, + 12 MOTOR (ITALY/W.GERMANY)
	614 020 6555	SOCKET, 3P
IC905	⚠ 409 001 7603	IC AN7812F

+ 12 TUNER DECK AMP PCB ASSY

Ref. No.	Part No.	Description
226	614 216 4099	ASSY, PCB, + 12 TUNER DECK AMP (SPAIN/EUROPE)
	614 215 8517	ASSY, PCB, + 12 TUNER DECK AMP (ITALY/W.GERMANY)
	614 020 6555	SOCKET, 3P
IC904	409 001 7603	IC AN7812F

CD MAIN PCB ASSY

Ref. No.	Part No.	Description
227	614 216 0008	ASSY, PCB, CD MAIN
	614 121 6829	HEAT SINK
	614 017 2119	PLUG, 4P
	614 017 2157	PLUG, 8P
	614 212 4680	SOCKET, FL
	614 017 2546	PLUG, 3P
	614 017 2546	PLUG, 3P
	614 016 3865	PLUG, 4P
T101	614 194 3596	FILTER, RF COIL
T102	614 194 3619	O.S.C COIL, PLL
T501	614 194 3602	FILTER, LPF
T502	614 194 3602	FILTER, LPF
L301	614 028 4256	FILTER, CHOKE
L401	614 028 4133	FILTER, CHOKE
X301	614 194 2902	CERAMIC RESONATOR
X401	614 194 2919	CERAMIC RESONATOR
X864	614 194 2919	CERAMIC RESONATOR
SVR101	614 003 3083	SEMI V.R, 10K OHM FOCUS GAIN
or	614 203 6594	SEMI V.R, 10K OHM
or	614 204 1901	SEMI V.R, 10K OHM
SVR102	614 003 3120	SEMI V.R, 100K OHM TRACKING BALANCE
or	614 203 6655	SEMI V.R, 100K OHM
or	614 204 1956	SEMI V.R, 100K OHM
SVR103	614 003 3113	SEMI V.R, 50K OHM TRACKING GAIN

Ref. No.	Part No.	Description
SVR103	632 246 9419	SEMI V.R, 47K OHM
or	614 204 1949	SEMI V.R, 50K OHM
SVR104	614 003 3090	SEMI V.R, 20K OHM
or	614 203 6617	SEMI V.R, 22K OHM
or	614 204 1918	SEMI V.R, 20K OHM
SVR301	614 003 3083	SEMI V.R, 10K OHM
or	614 203 6594	SEMI V.R, 10K OHM
or	614 204 1901	SEMI V.R, 10K OHM
CN1	614 017 2577	PLUG, 6P, PICK SENSOR
or	614 017 2577	PLUG, 6P SW 1
CN2	614 017 2133	PLUG, 6P PICK ACT
or	614 017 2584	PLUG, 7P SW 2
CN5	614 017 2126	PLUG, 5P MAIN P.T
CN6	614 017 2546	PLUG, 3P SUB P.T
CN8	614 017 2584	PLUG, 7P SW 2
CN9	614 017 2577	PLUG, 6P SW 1
CN12	614 017 2584	PLUG, 7P TUNER AMP
CN13	614 017 2539	PLUG, 2P DECK
IC101	409 124 6507	IC LA9200NM
IC201	⚠ 409 018 5500	IC LA6510
IC202	⚠ 409 018 5500	IC LA6510
IC301	410 071 9404	IC UPD75216ACW-265
IC401	409 120 4002	IC LC7860N
IC402	409 089 5201	IC LC3517AS-15
IC501	409 067 0709	IC LC7880
IC503	409 018 4503	IC LA6458DS
IC504	409 018 4503	IC LA6458DS
IC505	409 018 4503	IC LA6458DS
IC506	409 053 0607	IC TC9154AP
IC507	409 020 0708	IC LB1403
IC601	⚠ 409 189 4203	IC M5278D05
IC602	⚠ 409 077 5305	IC L79M05
Q101	405 080 7107	TR DTA113ZS
Q102	405 018 2600	TR 2SC3400
or	405 000 4407	TR DTC124ES
Q201	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
or	405 017 9709	TR 2SC3330-U
or	405 019 3705	TR 2SC536-G-AUD-SPA
Q202	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
or	405 017 9709	TR 2SC3330-U
or	405 019 3705	TR 2SC536-G-AUD-SPA
Q203	405 018 2600	TR 2SC3400
or	405 000 4407	TR DTC124ES
Q204	405 018 2600	TR 2SC3400
or	405 000 4407	TR DTC124ES
Q205	405 018 2600	TR 2SC3400
or	405 000 4407	TR DTC124ES
Q206	405 021 0600	TR 2SD1012-G-SPA
or	405 033 6805	TR 2SD1468S-S
Q322	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
or	405 017 9709	TR 2SC3330-U
or	405 019 3705	TR 2SC536-G-AUD-SPA
Q323	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
or	405 017 9709	TR 2SC3330-U
or	405 019 3705	TR 2SC536-G-AUD-SPA
Q324	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
or	405 017 9709	TR 2SC3330-U
or	405 019 3705	TR 2SC536-G-AUD-SPA
Q325	405 004 4601	TR 2SA608-F-SPA
or	405 006 1806	TR 2SA933S-R
or	405 006 1301	TR 2SA933-S
Q326	⚠ 405 024 0409	TR 2SD545-F-NP
Q327	⚠ 405 007 6701	TR 2SB598-F-NP
Q351	405 018 2600	TR 2SC3400
or	405 000 4407	TR DTC124ES
Q352	405 003 7603	TR 2SA1345
or	405 000 2205	TR DTA144ES
Q353	405 018 2600	TR 2SC3400

Ref. No.	Part No.	Description
Q353	405 000 4407	TR DTC124ES
Q354	405 003 7603	TR 2SA1345
or	405 000 2205	TR DTA144ES
Q355	405 018 2600	TR 2SC3400
or	405 000 4407	TR DTC124ES
Q356	405 018 2600	TR 2SC3400
or	405 000 4407	TR DTC124ES
Q358	405 018 2600	TR 2SC3400
or	405 000 4407	TR DTC124ES
Q359	405 003 7603	TR 2SA1345
or	405 000 2205	TR DTA144ES
Q360	405 018 2600	TR 2SC3400
or	405 000 4407	TR DTC124ES
Q361	405 018 2600	TR 2SC3400
or	405 000 4407	TR DTC124ES
Q501	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
or	405 017 9709	TR 2SC3330-U
or	405 019 3705	TR 2SC536-G-AUD-SPA
Q502	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
or	405 017 9709	TR 2SC3330-U
or	405 019 3705	TR 2SC536-G-AUD-SPA
Q503	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
or	405 017 9709	TR 2SC3330-U
or	405 019 3705	TR 2SC536-G-AUD-SPA
Q504	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
or	405 017 9709	TR 2SC3330-U
or	405 019 3705	TR 2SC536-G-AUD-SPA
Q505	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
or	405 017 9709	TR 2SC3330-U
or	405 019 3705	TR 2SC536-G-AUD-SPA
Q506	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
or	405 017 9709	TR 2SC3330-U
or	405 019 3705	TR 2SC536-G-AUD-SPA
Q507	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
or	405 017 9709	TR 2SC3330-U
or	405 019 3705	TR 2SC536-G-AUD-SPA
Q601	405 036 3108	TR 2SA1503
or	405 082 4609	TR DTA123YS
Q602	405 018 2600	TR 2SC3400
or	405 000 4407	TR DTC124ES
Q604	405 004 4601	TR 2SA608-F-SPA
or	405 006 1806	TR 2SA933S-R
or	405 006 1301	TR 2SA933-S
D101	408 000 0103	VA SVC211SP-B2-AUD
D102	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D103	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D104	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D105	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D106	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D201	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D202	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D203	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D204	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D301	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D302	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D303	407 007 9904	DIODE GMA01

Ref. No.	Part No.	Description
D303	407 012 4406	DIODE 1SS133
D304	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D306	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D308	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D309	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D310	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D311	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D312	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D313	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D314	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D315	407 005 4505	DIODE DS442X
or	407 013 7109	DIODE 1S2473
D317	407 070 8408	ZENER DIODE GZS9.1Y
or	407 053 8807	ZENER DIODE MTZ9.1B
D320	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D321	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D601	⚠ 407 004 9105	DIODE DSF10C
or	⚠ 407 012 3300	DIODE 1SR35-200A
D602	⚠ 407 004 9105	DIODE DSF10C
or	⚠ 407 012 3300	DIODE 1SR35-200A
D603	⚠ 407 004 9105	DIODE DSF10C
or	⚠ 407 012 3300	DIODE 1SR35-200A
D604	⚠ 407 004 9105	DIODE DSF10C
or	⚠ 407 012 3300	DIODE 1SR35-200A
D607	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D608	407 051 6706	ZENER DIODE GZS5.1Y
or	407 053 6308	ZENER DIODE MTZ5.1B
D609	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D610	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D611	407 051 7505	ZENER DIODE GZS6.8Y
or	407 053 7602	ZENER DIODE MTZ6.8B
C117	403 067 6204	MT-COMPO 0.15U J 50V
C133	403 080 3105	POLYPRO 1000P J 50V
or	403 080 5000	POLYPRO 1000P J 100V
C235	403 086 2607	NP-ELECT 1U M 50V
C507	403 063 5706	POLYESTER 8200P K 50V
C508	403 063 5706	POLYESTER 8200P K 50V
X301	614 215 5608	CERAMIC RESONATOR, 8.64MHz
X401	614 215 5585	CERAMIC RESONATOR, 4.19MHz

DISPLAY PCB ASSY

Ref. No.	Part No.	Description
228	614 216 0022	ASSY, PCB, DISPLAY(SPAIN/EUROPE)
	614 216 0046	ASSY, PCB, DISPLAY (ITALY/W.GERMANY)
	614 212 4932	SOCKET, MAIN 26P
	614 211 6449	FLUORESCENT TUBE
	614 208 9231	BRACKET-E, CD FL PCB, 1T
	614 208 9248	BRACKET-E, 1T
	614 125 1431	CUSHION, CD FL

IR PCB ASSY

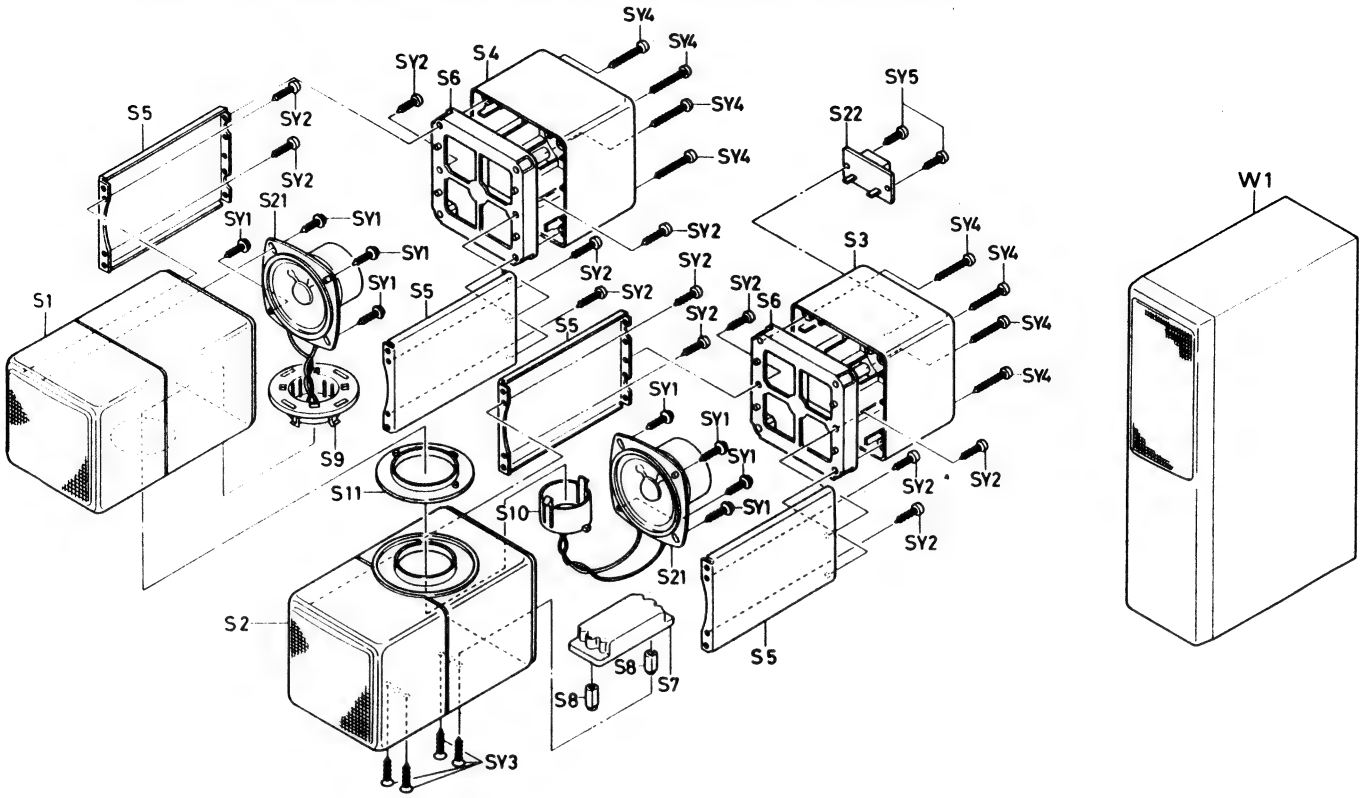
Ref. No.	Part No.	Description
229	614 216 0091	ASSY, PCB, IR (SPAIN/EUROPE)
	614 216 0114	ASSY, PCB, IR (ITALY/W.GERMANY)
	614 017 2546	PLUG
	614 208 1198	OPTO CONNECTOR, GP1U501X
	614 024 2829	SPECIAL SWITCH, GP1U501S

FSZ PCB ASSY (for W.GERMANY)

Ref. No.	Part No.	Description
230	614 218 0303	ASSY, PCB, FSZ

MEMO

20. EXPLODED VIEW & PARTS LIST (SCOCA & WOOFER SPEAKER)



PACKING & ACCESSORIES

Ref. No.	Part No.	Description
	614 214 5128	PAD, FRONT (L) BACK (R)
	614 214 5135	PAD, FRONT (R) BACK (L)
	614 214 5111	PAD, CORNER PAD
	614 176 4214	INNER POLYE COVER, PROTECT SPS
	614 211 5169	SHEET 350X650X1T
	614 212 2587	INNER POLYE COVER, PROTECT SPW
	614 211 4087	SHEET 450X1500X1T
	614 214 6422	INNER CARTON

CABINET & CHASSIS

Ref. No.	Part No.	Description
W1	614 213 2722	ASSY, CABINET, SPEAKER
S1	614 211 4933	ASSY, CABINET, LOWER
S2	614 211 4940	ASSY, CABINET, UPPER
S3	614 211 4957	ASSY, CABINET, REAR, LOWER
S4	614 210 6945	CABINET, REAR, UPPER
S5	614 210 6631	MOUNT-M, CABI, REAR CONECT
S6	614 210 6648	MOUNT-M, CABI, REAR REINFORCE
S7	614 210 6655	MOUNT-M
S8	614 210 6686	POST, SP BOX HOLD
S9	614 210 6662	JOINT, CABI CONECT
S10	614 210 6679	LOCK, CABI CONECT
S11	614 210 6693	SPACER, CABI CONECT
S12	614 125 6443	CUSHION
S13	614 214 6644	RATING PLATE

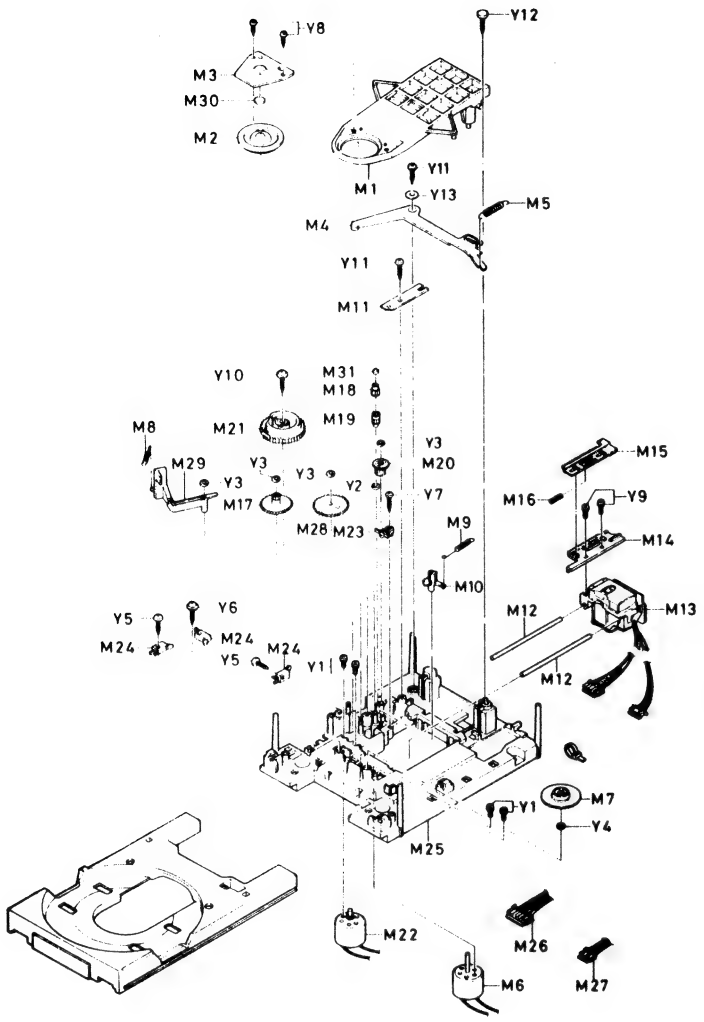
FIXING PARTS

Ref. No.	Part No.	Description
SY1	411 020 8905	SCR S-TPG BRZ+FLG 3X10
SY2	411 021 3503	SCR S-TPG BIN 3X10
SY3	411 022 3106	SCR S-TPG FLT 3X12
SY4	411 023 6700	SCR S-TPG PAN 3X25
SY5	411 021 4104	SCR S-TPG BIN 3X12

ELECTRICAL PARTS

Ref. No.	Part No.	Description
S21	614 213 1978	SPEAKER
S22	614 211 1703	TERMINAL

21. EXPLODED VIEW & PARTS LIST (CD MECHANISM)



CD MECHANISM (PM-DADW75)

Ref. No.	Part No.	Description
M1	614 212 1702	LEVER ASSY, CHUCKING
M2	614 205 7421	PULLEY, CHUCKING
M3	614 205 1481	BRACKET ASSY, CHUCK PULLEY
M4	614 140 1324	LEVER, CHUKING CAM
M5	614 151 7063	SPRING COIL, CHUCKING CAM LEVER
M6	614 045 2105	COMMUTATE MOTOR, SPINDLE
M7	614 073 6939	TURN TABLE, SPINDLE
M8	614 151 7025	SPRING COIL, DETECTION LEVER
M9	614 151 7056	SPRING COIL, TRIGGER GEAR
M10	614 140 1317	LEVER, TRIGGER GEAR
M11	614 195 7814	SPRING PLATE, GEAR FIX
M12	614 145 9622	SHAFT, PICK UP RAIL
M13	614 204 5541	PICK UP
M14	614 134 8902	GEAR, PICK
M15	614 134 8919	GEAR, PICK
M16	614 151 7223	SPRING COIL, RACK GEAR
M17	614 134 8889	GEAR, MECHANISM RELAY
M18	614 197 7645	GEAR, LOADING RATCHET UP
M19	614 134 8834	GEAR, LOADING RATCHET LOW
M20	614 134 8827	GEAR, LOADING RETARD
M21	614 199 1627	GEAR, CAM
M22	614 195 8101	COMMUTATE MOTOR ASSY
M23	614 024 1600	SWITCH, CHUCKING
M24	614 018 9223	SWITCH, LIMIT OPEN END 8CM
M25	614 199 1443	CHASSIS ASSY
M26	614 211 4537	SOCKET, SW LEAD
M27	614 211 4520	SOCKET, MOTOR LEAD
M28	614 134 8872	GEAR, PICK
M29	614 140 1331	LEVER, 8CM DISC DETECTION
M31	614 197 7539	SPACER, RELAY RATCHET GEAR
M32	614 129 4971	FIXER
M33	614 204 9280	PULLEY CHUCKING PULLEY FLYWHEEL

FIXING PARTS (MECHANISM)

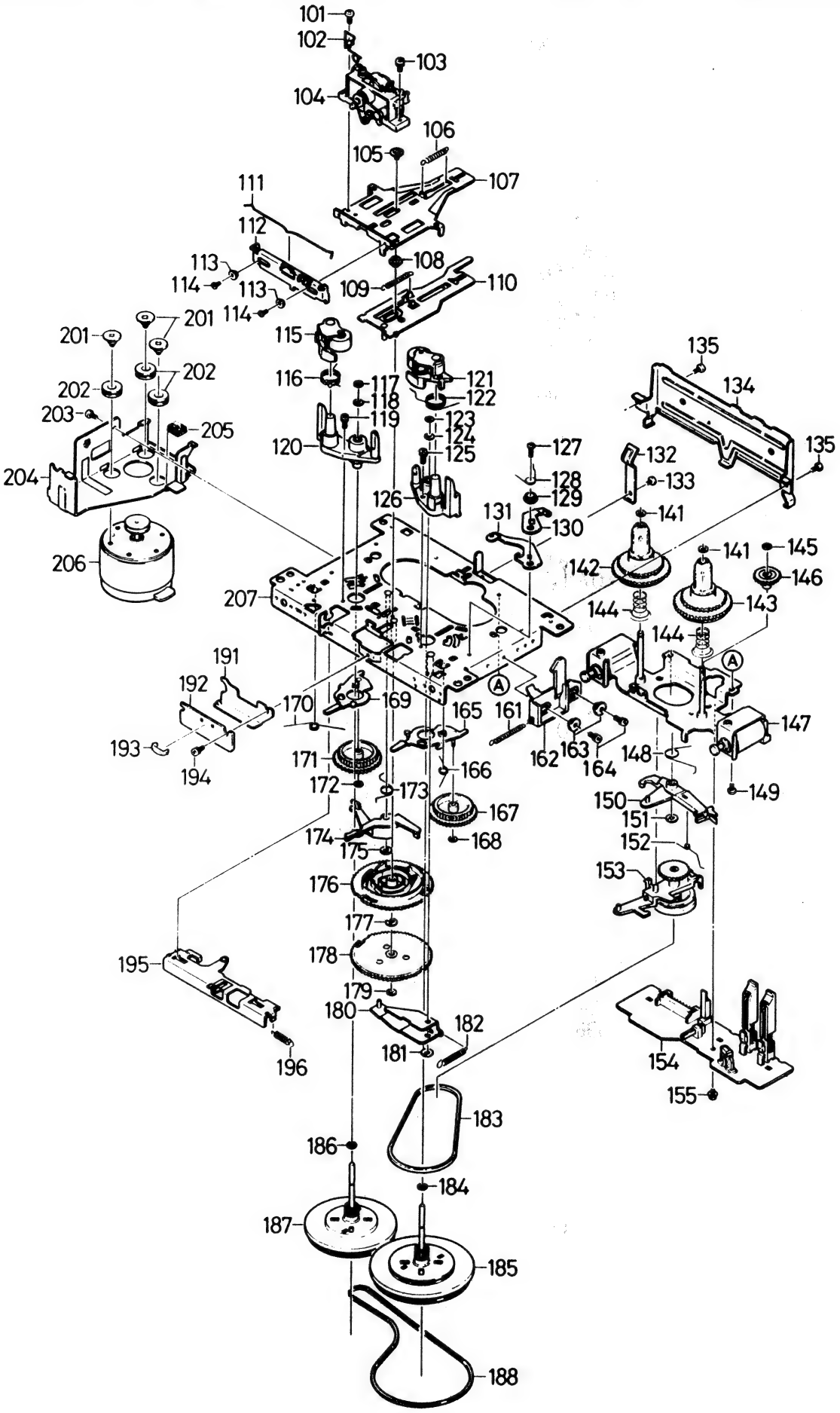
Ref. No.	Part No.	Description
Y1	411 044 7205	SCR PAN+SW 2X4
Y2	412 012 7005	SPECIAL WASHER, 2.1X4X0.25T
Y3	412 013 0609	SPECIAL WASHER, 1.6X3.2X0.25T
Y4	412 032 0208	SPECIAL WASHER
Y5	411 104 4205	SCR TPG PAN PCS 1.7X8
Y6	411 020 9902	SCR S-TPG BRZ+FLG 3X8
Y7	411 022 8408	SCR S-TPG PAN 2X8
Y8	411 021 2704	SCR S-TPG BIN 2.6X6
Y9	411 044 7502	SCR PAN+SW 2X5
Y10	411 021 5705	SCR S-TPG BIN 3X6
Y11	411 021 3503	SCR S-TPG BIN 3X10
Y12	411 020 8905	SCR S-TPG BRZ+FLG 3X10
Y13	411 092 2900	WASHER Z 3X10X1
Y14	411 063 1109	SCR SET HEX-SCT 2X6
Y15	411 033 2907	SCR FLT 2X4

22. PARTS LIST

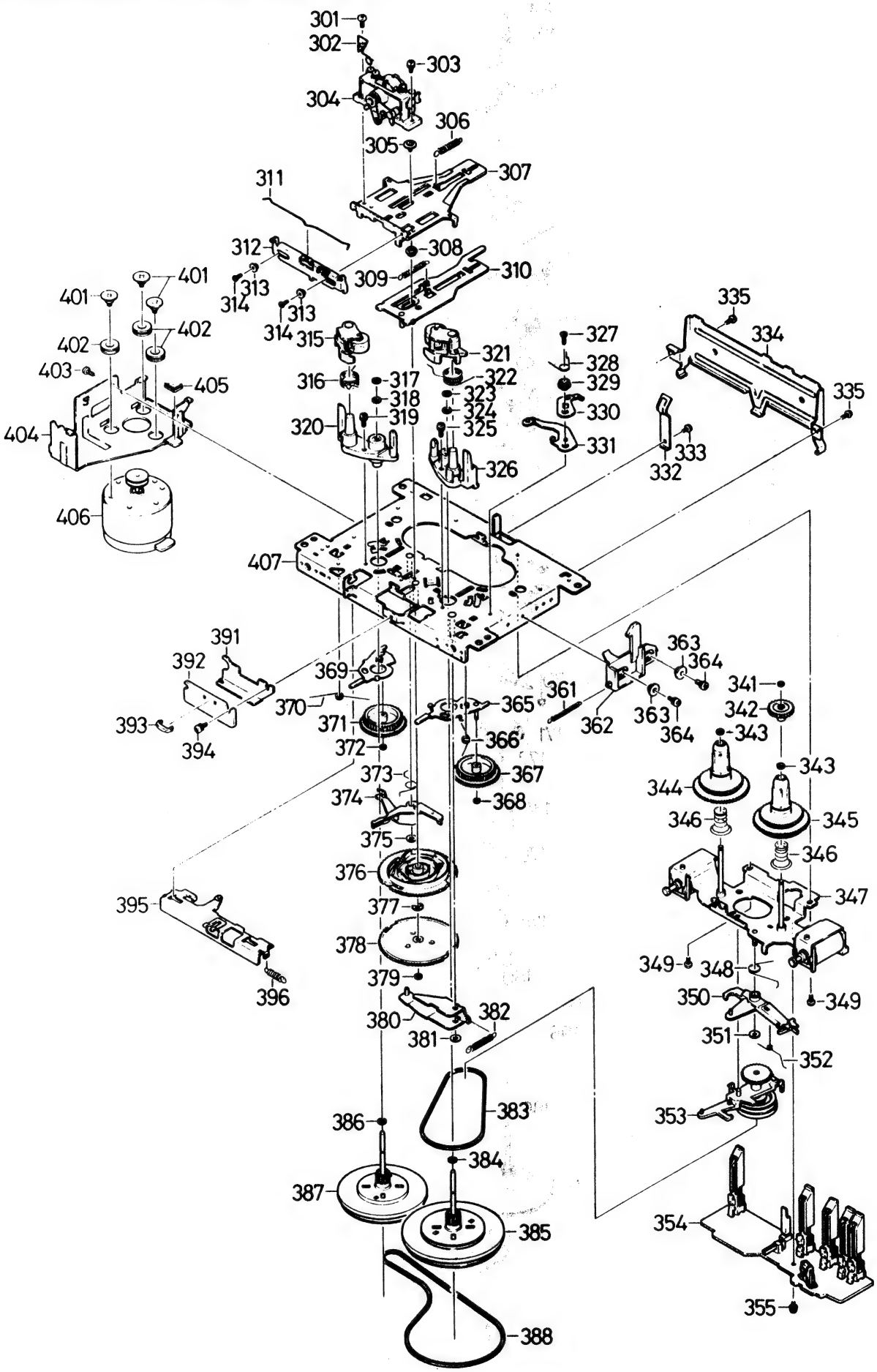
TAPE MECHANISM "A"

Ref. No.	Part No.	Description
101	412 032 4800	SPECIAL SCREW, M2X5
102	614 206 5105	SPRING, WIRE, CLOMP
103	412 032 2707	SPECIAL SCREW, M2X5
104	614 207 6200	ASSY, HEAD, PLAY
105	412 032 3001	SPECIAL SCREW, M2X5
106	614 206 3286	SPRING, TENS, REV/CUE
107	614 206 3248	SLIDE, HEAD PANEL (A)
108	614 206 3132	COLLAR, HEAD PANEL BASE
109	614 206 3293	SPRING, TENS, PANEL
110	614 206 2821	ASSY, SLIDE, HEAD PANEL (B)
111	614 206 3378	SPRING, WIRE, PINCH ROLLER
112	614 206 3194	LEVER, PINCH ROLLER CHANGE
113	614 206 3118	COLLAR, LEVER (112) BASE
114	412 032 2806	SPECIAL SCREW, M1.7X3
115	614 212 1603	ASSY, PNCH ROLLER (R)
116	614 206 3361	SPRING, WIRE, PINCH ROLLER (R)
117	412 027 9803	SPECIAL WASHER, 2.1X3.5X0.5T
118	412 032 5401	SPECIAL WASHER, 1.55X3.5X0.5T
119	412 032 3605	SPECIAL SCREW, M2X6
120	614 206 2715	ASSY, BRACKET-E, FLYWHEEL
121	614 212 1597	ASSY, PINCH ROLLER (F)
122	614 206 3354	SPRING, WIRE, PINCH ROLLER (F)
123	412 032 3506	SPECIAL WASHER, 2.1X3.5X0.5T
124	412 032 3704	SPECIAL WASHER, 1.8X4X0.5T
125	412 032 3605	SPECIAL SCREW, M2X6
126	614 206 2722	ASSY, BRACKET-E, FLYWHEEL
127	412 032 2400	SPECIAL SCREW, M2
128	614 206 3316	SPRING, WIRE, EJECT STOPPER
129	614 206 3095	COLLAR, EJECT STOPPER
130	614 206 3163	LEVER, EJECT STOPPER A
131	614 206 3156	LEVER, EJECT STOPPER A
132	614 206 3200	PLATE, CASSETTE HOLDER
133	412 027 2606	SPECIAL SCREW, C TAPP SCREW M2X3
134	614 206 3224	SLIDE, SW PROTECTOR
135	412 004 0908	SPECIAL SCREW, M2X4
141	412 032 3902	SPECIAL WASHER, 1.4X3.2X0.4
142	614 207 2158	ASSY, REEL, TAKE UP, REVERSE
143	614 206 4399	ASSY, REEL, TAKE UP, FORWARD
144	614 206 3309	SPRING, COMP, BACK TENSION
145	412 013 4904	SPECIAL WASHER, 1.2X3X0.25
146	614 206 4658	GEAR, F.FWD
147	614 207 6231	ASSY, BRACKET-M
148	614 206 5099	SPRING, WIRE, FR TRIGGER ARM
149	412 026 2003	SPECIAL SCREW, M2X4
150	614 206 3149	LEVER, RF TRIGGER ARM
151	412 032 3803	SPECIAL WASHER, 2.1X5X0.4
152	614 207 7993	SPRING, WIRE, REW/ F.FWD TRIGGER ARM
153	614 206 4436	ASSY, PULLEY, REW/ F.FWD CLUTCH
154-0	614 212 5755	ASSY, PCB, MECHANISM
154-1	614 206 3538	SWITCH, LEAF, S641, CASSETTE DIRECTION
154-2	614 206 5112	SWITCH, LEAF, S642, PLAY
154-3	614 206 5129	SWITCH, LEAF, S643, F.FWD/REW
154-4	409 128 5209	IC LB9051A
154-5	614 206 2968	HOLDER, IC PROTECTOR
154-6	614 017 3888	PLUG, 9P
154-7	407 004 9105	DIODE DSF10C
155	412 032 2509	SPECIAL SCREW, M2X5
161	614 206 3262	SPRING, TENS, EJECT SLIDE LEVER
162	614 208 9583	SLIDE, EJECT
163	614 206 3101	COLLAR, EJECT KICK LEVER
164	412 032 2509	SPECIAL SCREW, M2X5
165	614 207 2882	ASSY, LEVER, TAKE-UP GEAR ARM (F)
166	614 206 3323	SPRING, WIRE, TAKE-UP GEAR ARM (F)
167	614 206 4207	GEAR, TAKE-UP
168	412 013 4904	SPECIAL WASHER, 1.2X3X0.25T
169	614 206 4467	ASSY, LEVER, TAKE-UP GEAR ARM (R)
170	614 206 3330	SPRING, WIRE, TAKE-UP GEAR ARM (R)
171	614 206 4207	GEAR, TAKE-UP
172	412 013 4904	SPECIAL WASHER, 1.2X3X0.25T
173	614 206 3347	SPRING, WIRE, MAIN TRIGGER ARM
174	614 206 3170	LEVER, MAIN TRIGGER ARM
175	412 032 3308	SPECIAL WASHER, 2.1X5X0.4T
176	614 206 3002	GEAR, MAIN
177	412 032 3100	SPECIAL WASHER, E RING D2.0
178	614 206 3019	GEAR, REW/F.FWD CAM
179	412 032 3209	SPECIAL WASHER, 1.55X3.5X0.5T
180	614 206 2807	ASSY, LEVER, PANEL KICK
181	412 032 3308	SPECIAL WASHER, 2.1X5X0.4T
182	614 206 5044	SPRING, TENS, PANEL KICK
183	614 206 4849	BELT, FLAT, REW/F.FWD
185	614 206 2777	ASSY, FLYWHEEL (F)
187	614 206 2760	ASSY, FLYWHEEL (R)
188	614 206 3064	BELT, FLAT, MAIN
191	614 206 5006	PLATE, SHIELD
192	614 206 3408	PCB, RELAY BOARD
193	614 206 2975	FIXER, WIRE CLAMP
194	412 032 2905	SPECIAL SCREW, M2X5
195	614 206 2814	ASSY, SLIDE, CHANGE SLIDE LEVER
196	614 206 3279	SPRING, TENS, CHANGE SLIDE LEVER
201	412 032 4008	SPECIAL SCREW, MOTOR
202	614 206 2944	CUSHION, RUBBER, MOTOR
203	412 026 2003	SPECIAL SCREW, M2X4
204	614 206 2890	BRACKET-M, MOTOR
205	614 206 2951	CUSHION, MAT
206	614 207 1298	COMMUTATE MOTOR ASSY
207	614 206 2708	ASSY, CHASSIS

23. EXPLODED VIEW (TAPE MECHANISM "A")



24. EXPLODED VIEW (TAPE MECHANISM "B")



25. PARTS LIST

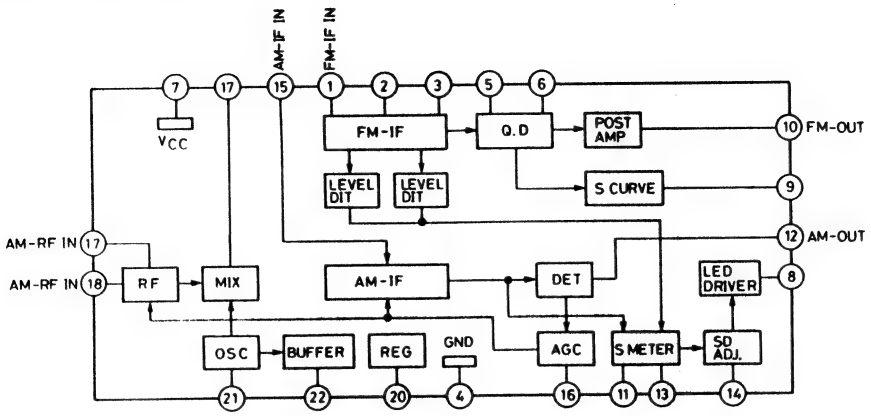
TAPE MECHANISM "B"

Ref. No.	Part No.	Description
301	412 032 4800	SPECIAL SCREW, M2X5
302	614 206 5105	SPRING, WIRE, CLUMP
303	412 032 2707	SPECIAL SCREW, M2X5
304	614 207 6194	ASSY, HEAD, R/P
305	412 032 3001	SPECIAL SCREW, M2X5
306	614 206 3286	SPRING, TENS, REV/CUE
307	614 206 3248	SLIDE, HEAD PANEL (A)
308	614 206 3132	COLLAR, HEAD PANEL BASE
309	614 206 3293	SPRING, TENS, PANEL
310	614 206 2821	ASSY, SLIDE, HEAD PANEL (B)
311	614 206 3378	SPRING, WIRE, PINCH ROLLER
312	614 206 3194	LEVER, PINCH ROLLER CHANGE
313	614 206 3118	COLLAR, PINCH ROLLER CHANGE
314	412 032 2806	SPECIAL SCREW, M1.7X3
315	614 212 1603	ASSY, PINCH ROLLER (R)
316	614 206 3361	SPRING, WIRE, PINCH ROLLER (R)
317	412 027 9803	SPECIAL WASHER, 2.1X3.5X0.5T
318	412 032 5401	SPECIAL WASHER, 1.55X3.5X0.5T
319	412 032 3605	SPECIAL SCREW, M2X6
320	614 206 2715	ASSY, BRACKET-E, FLYWHEEL
321	614 212 1597	ASSY, PINCH ROLLER (F)
322	614 206 3354	SPRING, WIRE, PINCH ROLLER (F)
323	412 032 3506	SPECIAL WASHER, 2.1X3.5X0.5T
324	412 032 3704	SPECIAL WASHER, 1.8X4X0.5T
325	412 032 3605	SPECIAL SCREW, M2X6
326	614 206 2722	ASSY, BRACKET-E, FLYWHEEL
327	412 032 2400	SPECIAL SCREW, M2
328	614 206 3316	SPRING, WIRE, EJECT STOPPER
329	614 206 3095	COLLAR, EJECT STOPPER
330	614 206 3163	LEVER, EJECT STOPPER A
331	614 206 3156	LEVER, EJECT STOPPER B
332	614 206 3200	PLATE, CASSETTE HOLDER
333	412 027 2606	SPECIAL SCREW, M2X3
334	614 206 3224	SLIDE, SW PROTECTOR
335	412 004 0908	SPECIAL SCREW, M2X4
341	412 013 4904	SPECIAL WASHER, 1.2X3X0.25T
342	614 206 4658	GEAR, F.FWD
343	412 032 3902	SPECIAL WASHER, 1.4X3.2X0.4T
344	614 207 2158	ASSY, REEL, TAKE-UP REVERSE
345	614 206 4399	ASSY, REEL, TAKE-UP FORWARD
346	614 206 3309	SPRING, COMP, BACK TENSION
347	614 207 6231	ASSY, BRACKET-M
348	614 206 5099	SPRING, WIRE, FR TRIGGER ARM
349	412 026 2003	SPECIAL SCREW, M2X4
350	614 206 3149	LEVER, RF TRIGGER ARM
351	412 032 3803	SPECIAL WASHER, 2.1X5X0.4T
352	614 207 7993	SPRING, WIRE, REW/ F.FWD TRIGGER ARM
353	614 206 4436	ASSY, PULLEY, REW/ F.FWD CLUTCH
354	614 212 5762	ASSY, PCB, MECHANISM
354-1	614 206 3538	SWITCH, LEAF, S644, S641, S648
354-2	614 206 5112	SWITCH, LEAF, S645
354-3	614 206 5129	SWITCH, LEAF, S646
354-4	409 128 5209	IC LB9051A
354-5	614 206 2968	HOLDER, IC PROTECTOR
354-6	614 017 3918	PLUG, 12P
354-7	407 004 9105	DIODE DSF10C
355	412 032 2509	SPECIAL SCREW, M2X5
361	614 206 3262	SPRING, TENS, EJECT STOPPER LEVER
362	614 208 9583	SLIDE, EJECT
363	614 206 3101	COLLAR, EJECT KICK LEVER
364	412 032 2509	SPECIAL SCREW, M2X5
365	614 207 2882	ASSY, LEVER, TAKE-UP GEAR ARM (F)
366	614 206 3323	SPRING, WIRE, TAKE-UP GEAR ARM (F)
367	614 206 4207	GEAR, TAKE-UP
368	412 013 4904	SPECIAL WASHER, 1.2X3X0.25
369	614 206 4467	ASSY, LEVER, TAKE-UP GEAR ARM (R)
370	614 206 3330	SPRING, WIRE, TAKE-UP GEAR ARM (R)
371	614 206 4207	GEAR, TAKE-UP
372	412 013 4904	SPECIAL WASHER, 1.2X3X0.25
373	614 206 3347	SPRING, WIRE, MAIN TRIGGER ARM
374	614 206 3170	LEVER, MAIN TRIGGER
375	412 032 3308	SPECIAL WASHER, 2.1X5X0.4T
376	614 206 3002	GEAR, MAIN
377	412 032 3100	SPECIAL WASHER, E RING D2.0
378	614 206 3019	GEAR, REW/F.FWD CAM
379	412 032 3209	SPECIAL WASHER, 1.55X3.5X0.5T
380	614 206 2807	ASSY, LEVER, PANEL KICK
381	412 032 3308	SPECIAL WASHER, 2.1X5X0.4T
382	614 206 5044	SPRING, TENS, PANEL KICK
383	614 206 4849	BELT, FLAT, REW/F.FWD
385	614 206 2777	ASSY, FLYWHEEL (F)
387	614 206 2760	ASSY, FLYWHEEL (R)
388	614 206 3064	BELT, FLAT, MAIN
391	614 206 5006	PLATE, SHIELD
392	614 206 1954	PCB, RELAY BOARD
393	614 206 2975	FIXER, WIRE CLAMP
394	412 032 2905	SPECIAL SCREW, M2X5
395	614 206 2814	ASSY, SLIDE, CHANGE SLIDE LEVER
396	614 206 3279	SPRING, TENS, CHANGE SLIDE LEVER
401	412 032 4008	SPECIAL SCREW, MOTOR
402	614 206 2944	CUSHION, RUBBER, MOTOR
403	412 026 2003	SPECIAL SCREW, M2X4
404	614 206 2890	BRACKET-M, MOTOR
405	614 206 2951	CUSHION, MAT
406	614 207 1298	COMMUTATE MOTOR ASSY
407	614 206 2708	ASSY, CHASSIS

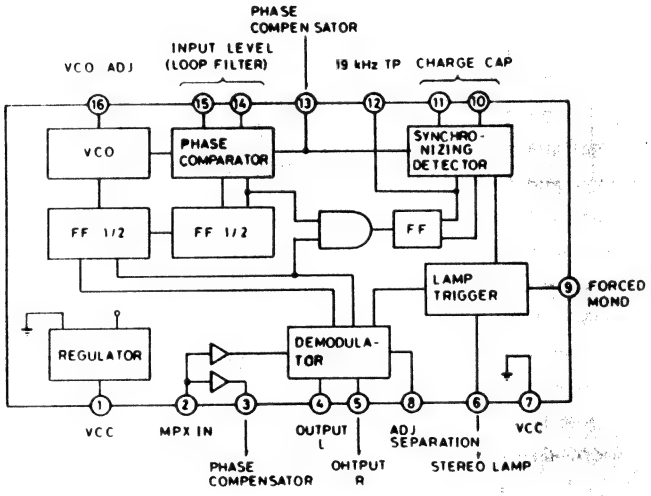
26. IC BLOCK DIAGRAM (1/7)

< TUNER SECTION >

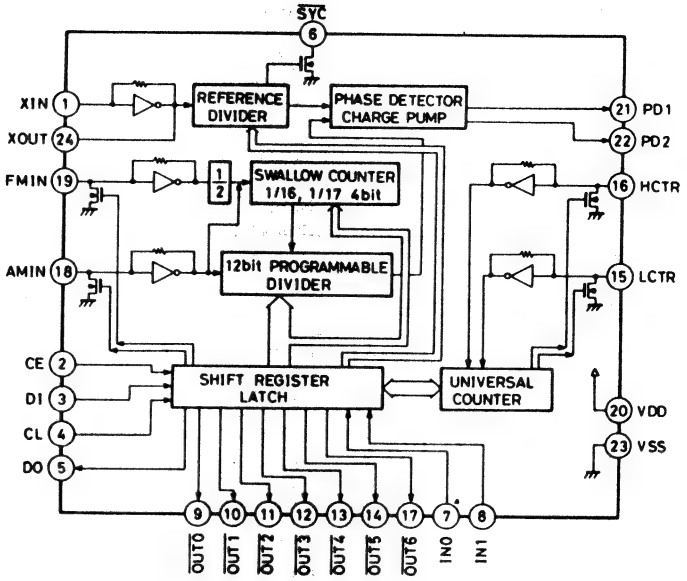
IC201 LA1265 (Tuner System)



IC301 LA3361 (PLL FM MPX. Stereo Demodulator)



IC403 LC7218 (PLL Frequency Synthesizer for Electronic Tuning)



LC7218 Pin Description

Pin No.	Pin Name	I/O	Function
1 24	XIN XOUT	I/O	• Crystal resonator (7.2MHz) is connected.
2	CE	I	• High level signals are input during serial data input (DI) or output (DO).
3	DI	I	• Serial data transferred from controller to LC7218 is input to this pin. • A total of 36 bits of data should be input for initialization.
4	CL	I	• Data is synchronized by this clock signal during serial data input (DI) or output (DO).
5	DO	O (N-CH open drain)	• Serial data transferred from the controller to LC7218 is output at this pin. • By synchronizing it with CL, 28 bits of the contents of the internal shift register can be output.
6	SYC	(N-CH open drain)	• Controller clock is output at this pin, 400 kHz (66% duty) is output after power-on.
7 8	IN0 IN1	O	• Contents of input ports IN0 and IN1 are converted from parallel to serial form and are output at output pin DO.
9 10 11 12 13 14 17	OUT0 OUT1 OUT2 OUT3 OUT4 OUT5 OUT6	O	• Bits O_0 to O_6 of serial data, transferred from the controller, are latched, and the data is inverted and output in parallel. • Time base (8Hz) for the clock can be output at OUT0 (while TB=1). • OUT1 and OUT2 are complementary outputs. • OUT0, OUT3, OUT4, OUT5, and OUT6 are N-ch open drain outputs (withstand voltage: 13V).

15	LCTR	I	• LCTR is selected by specifying serial data input: SC = 0.
			• When serial data input: SF = 1 is specified,
			  • Signals are not sent to the internal 1/8 divider, but are directly transmitted to the universal counter.
			• When serial data input: SF = 0 is specified,
			  • Period measurement mode is selected.
			  • Either a 1- or 2-cycle measuring period can be selected. When a 2-cycle period is selected, the input frequency range is between 2Hz and 20kHz. (GT = 1/0: 2/1 cycle)
			• Result is output as in HCTR.

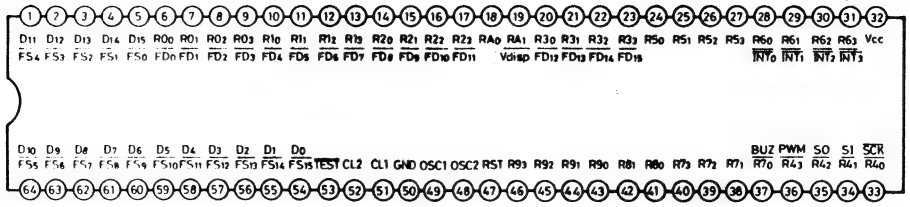
16	HCTR	I	• HCTR is selected by specifying serial data input: SC = 1. • When HCTR is selected, either 120ms or 60ms can be specified as the measuring time in the frequency measurement mode. (GT = 1/0: 120/60ms) • Result can be output at MSB of the universal counter via output pin DO.

18	AMIN	I	• AMIN is selected by specifying serial data input: DV = 0.
			• When serial data input: SP = 1 is specified.
			  • Signals are not sent to built-in prescaler (1/2), but are directly transferred to swallow counter.
			• When serial data input: SP = 0 is specified,
			  • Signals are directly transferred to a 12-bit programmable divider.

19	FMIN	I	• FMIN is selected by specifying serial data input: DV = 1. • Signals are sent to the swallow counter via built-in prescaler (1/2).
20	VDD	–	• Power is supplied to LC7218 via this pin. During PLL operation, 4.5 to 6.5V is applied.
21 22	PD1 PD2	3-state	• These are output pins for PLL charge pump signals. If the local oscillation signal frequency divided by N is higher than the reference frequency, high level signals are output at PD1 and PD2; if it is lower than the reference frequency, low level signals are output. If it is the same as the reference frequency, the PD1 and PD2 are brought to floating state.

IC BLOCK DIAGRAM (2/7)

IC404 HD404708A30S (Tuner Microprocessor)



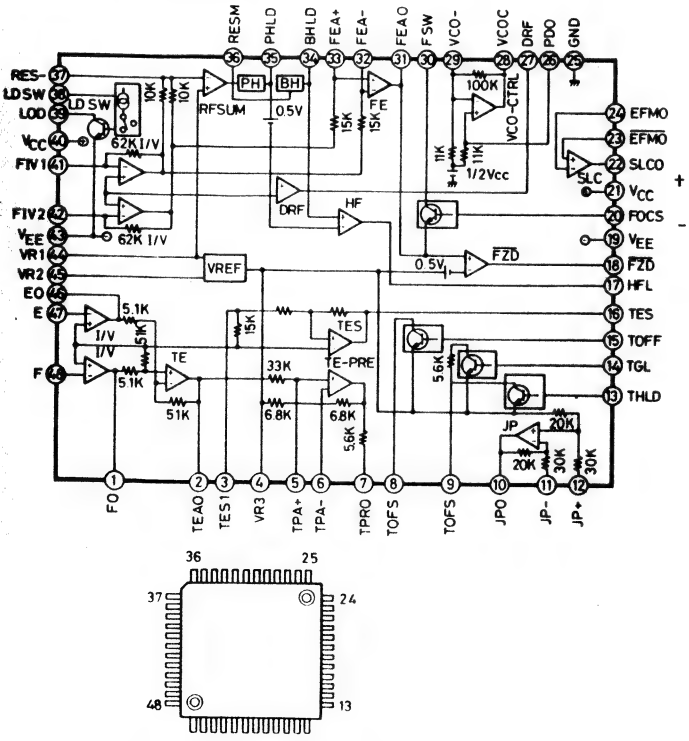
Pin Function of IC404 (HD404708A30S)

Pin No.	Pin Name	I/O	Initial	Active	Back up	Description
1	SEGMENT OUT 5	O				FL segment out 5
2	SEGMENT OUT 4	O				FL segment out 4
3	SEGMENT OUT 3	O				FL segment out 3
4	SEGMENT OUT 2	O				FL segment out 2
5	SEGMENT OUT 1	O				FL segment out 1
6	DIGIT OUT 1	O				FL segment out 1
7	DIGIT OUT 2	O				FL segment out 2
8	DIGIT OUT 3	O				FL segment out 3
9	DIGIT OUT 4	O				FL segment out 4
10	DIGIT OUT 5	O				FL segment out 5
11	DIGIT OUT 6	O				FL segment out 6
12	FUNCT 4	O	L	H	L	Function switching signal (TUNER), TUNER selecting; H pulse
13	FUNCT 3	O	L	H	L	Function switching signal (AUX), AUX selecting; H pulse
14	FUNCT 2	O	L	H	L	Function switching signal (VCR), VCR selecting; H pulse
15	FUNCT 1	O	L	H	L	Function switching signal (DAT), DAT selecting; H pulse
16	−20 dB MUTE	O	L	H	L	−20 dB Muting output, −20 dB MUTE on: H, off: L
17	∞ MUTE	O	L	L	Hi-Z	∞ MUTE output, ∞ MUTE on: H, off: L
18	POWER SW	I		L		Power SW key input, normal: H, SW on: L
19	Vdisp					Power source for display
20	VOL, UP	O	L	H	L	VOL Up signal output, normal: H, vol up: L
21	VOL, DOWN	O	L	H	L	VOL Down signal output, normal: H, vol down: L
22	VOL. IND					VOL Indicator LED output, power on: H, Vol operation: pulse
23	CD CONT	O	L	H	L	CD control output, normal: L, CD start (by Timer): L
24	TAPE CONT	O	Hi-Z	L or H	Hi-Z	TAPE control output. In Timer operation, TAPE PLAY → L, TAPE REC → H, Normal → Hi-Z.
25	FM/MONO	O	L	H	L	To enforce monoral in FM. Automatic switching: L, enforce Mono.: H
26	TV MAIN IND	I		L		Input for the display to be main source in TV Bilingual.
27	TV SUB IND	I		L		Input for the display to be sub source in TV Bilingual.
28	IR	I				IR Remocon signal input
29	INH	I		L		Inhibit. Detect AC source. AC: H, AC failed: L
30	STEREO IND	I		L		Input for the display to be Stereo mode, TV or FM. stereo: L
31	TU MUTE	O	H	H	Hi-Z	Muting output in tuner. muting off: L, muting on: H
32	Vcc					Power source
33	SCK	O				Clock signal to send the data to PLL IC.
34	SI	I				Data input of Tuner/SD, IF counter from PLL IC.
35	SO	O				Data output to PLL IC.
36	CE	O				Chip enable output to PLL IC.
37	CD FADE CONT/OSC CHK	O	L	H	L	CD Fade control signal. normal: L, CD Fade in. Fade out: H, Power off: time adjust clock (check key 1).
38	KEY OUT 1	O				Key matrix output signal 1
39	KEY OUT 2	O				Key matrix output signal 2
40	KEY OUT 3	O				Key matrix output signal 3
41	KEY OUT 4	O				Key matrix output signal 4
42	KEY OUT 5	O				Key matrix output signal 5

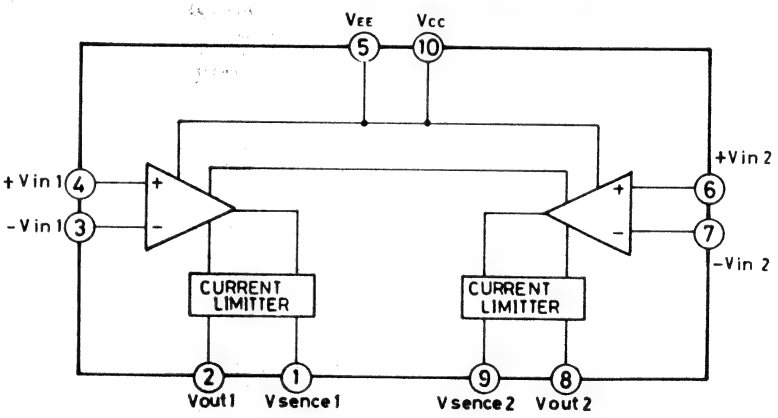
Pin No.	Pin Name	I/O	Initial	Active	Back up	Description
43	KEY IN 1	I				Key matrix input signal 1
44	KEY IN 2	I				Key matrix input signal 2
45	KEY IN 3	I				Key matrix input signal 3
46	KEY IN 4	I				Key matrix input signal 4
47	RESET					(Reset terminal)
48	OSC2					Crystal OSC
49	OSC1					Crystal OSC
50	GND					Gnd
51	CL1					
52	CL2					
53	TEST					
54	POWER RY	O	L	H	Hi-Z	Power relay control signal, Relay off: L, on: H
55	SEGMENT OUT 15	O				FL display, segment output 15
56	SEGMENT OUT 14	O				FL display, segment output 14
57	SEGMENT OUT 13	O				FL display, segment output 13
58	SEGMENT OUT 12	O				FL display, segment output 12
59	SEGMENT OUT 11	O				FL display, segment output 11
60	SEGMENT OUT 10	O				FL display, segment output 10
61	SEGMENT OUT 9	O				FL display, segment output 9
62	SEGMENT OUT 8	O				FL display, segment output 8
63	SEGMENT OUT 7	O				FL display, segment output 7
64	SEGMENT OUT 6	O				FL display, segment output 6

<CD SECTION>

IC101 LA9200NM (RF Amp. Servo)

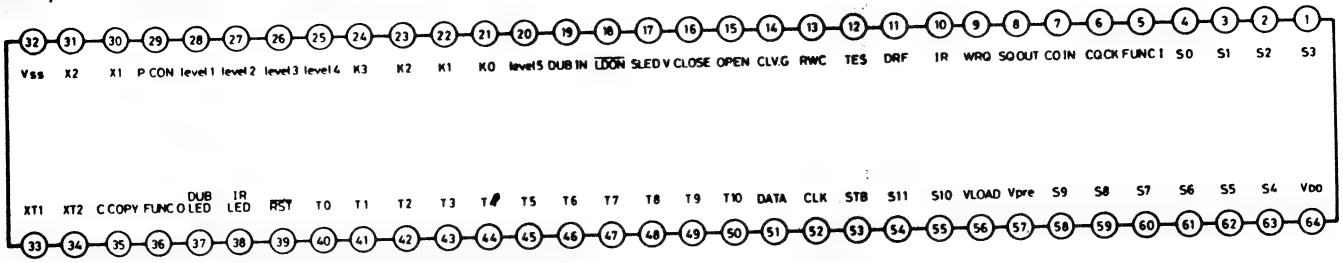


IC201, 202 LA6510 (Dual Power Operational Amp.)



IC BLOCK DIAGRAM (3/7)

IC301 μPD75216ACW (CD Microprocessor)

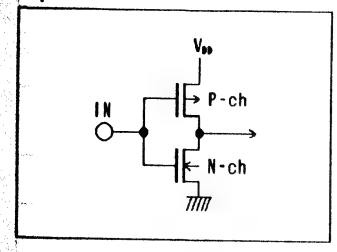


Pin Function of IC301 (μPD75216ACW)

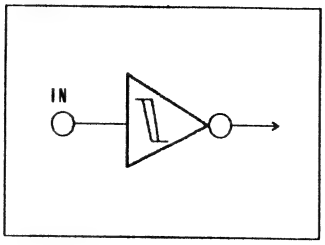
Pin No.	Pin Name	I/O	Description	Schematics I/O
1	S3	O	FL display signal & key scan output	OUT–3
2	S2	O	FL display signal & key scan output	OUT–3
3	S1	O	FL display signal & key scan output	OUT–3
4	S0	O	FL display signal & key scan output	OUT–3
5	FUNC–1	I	Function input	IN–2
6	COCK	O	LC7860N interface (clock)	OUT–1
7	COIN	O	LC7860N interface (SUBQ data)	OUT–1
8	SQOUT	I	LC7860N interface (command data)	IN–2
9	WRQ	I	LC7860N interface (SUBQ trigger)	IN–2
10	IR	I	Remocon signal input	IN–2
11	DRF	I	Detecting terminal of RF signal	IN–2
12	TES	I	Track count terminal	IN–2
13	RWC	O	LC7860N interface (data latch)	OUT–1
14	CLV–G	O	CLV Gain switching	OUT–1
15	OPEN	O	SLED Motor (Tray drive) control	OUT–1
16	CLOSE	O	SLED Motor (Tray drive) control	OUT–1
17	SLED V	O	Drive voltage control (Sled Motor)	OUT–1
18	LD ON	O	Laser switching	OUT–1
19	DUB IN	I	Dubbing input (from DECK)	IN–1
20	LEVEL5	I	Detecting terminal of peak level	IN–1
21	KEY0	I	KEY Input	IN–3
22	KEY1	I	KEY Input	IN–3
23	KEY2	I	KEY Input	IN–3
24	KEY3	I	KEY Input	IN–3
25	LEVEL4	I	Detecting terminal of peak level	IN–1
26	LEVEL3	I	Detecting terminal of peak level	IN–1
27	LEVEL2	I	Detecting terminal of peak level	IN–1
28	LEVEL1	I	Detecting terminal of peak level	IN–1
29	PCON	O	Power control (Power ON: Low)	OUT–1
30	X1	I	Pin for connection to 4.19MHz OSC	
31	X2	O	Pin for connection to 4.19MHz OSC	
32	Vss		Gnd	
33	XT1		Connect to Gnd	
34	XT2		Open	
35	C–COPY	O	Computer copy signal (for DECK)	OUT–1
36	FUNC–O	O	Auto Function signal (for DECK/ AMP)	OUT–1
37	DUB LED	O	Computer copy LED drive (ON; Low)	OUT–1
38	P53	O	Open	
39	RESET	I	Reset signal input	
40	T0	O	FL display digit signal output	OUT–3
41	T1	O	FL display digit signal output	OUT–3
42	T2	O	FL display digit signal output	OUT–3
43	T3	O	FL display digit signal output	OUT–3
44	T4	O	FL display digit signal output	OUT–3
45	T5	O	FL display digit signal output	OUT–3
46	T6	O	FL display digit signal output	OUT–3
47	T7	O	FL display digit signal output	OUT–3
48	T8	O	FL display digit signal output	OUT–3
49	T9	O	FL display digit signal output	OUT–3
50	T10	O	FL display digit signal output	OUT–3
51	EVR DATA	O	Electrical volume IC control	OUT–2
52	EVR CLK	O	Electrical volume IC control	OUT–2
53	EVR STB	O	Electrical volume IC control	OUT–2
54	S11	O	FL display segment signal output	OUT–3
55	S10	O	FL display segment signal output	OUT–3
56	VLOAD		Power source to pull down resitor of FL display	
57	VPRE		Power source to output buffer of FL display	
58	S9	O	FL display segment signal output	OUT–3
59	S8	O	FL display segment signal output	OUT–3
60	S7	O	FL display segment signal output	OUT–3
61	S6	O	FL display segment signal & key scan output	OUT–3
62	S5	O	FL display segment signal & key scan output	OUT–3
63	S4	O	FL display segment signal & key scan output	OUT–3
64	VDD		+5V	

* Refer to I/O circuit block next page about output format.

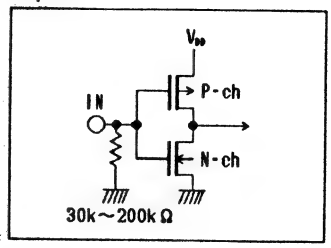
Input 1



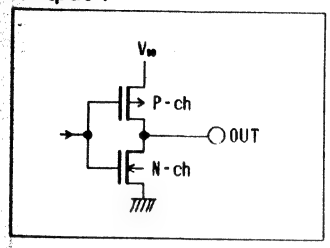
Input 2



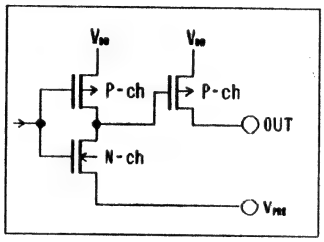
Input 3



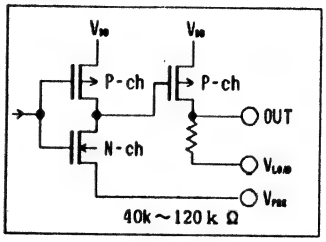
Output 1



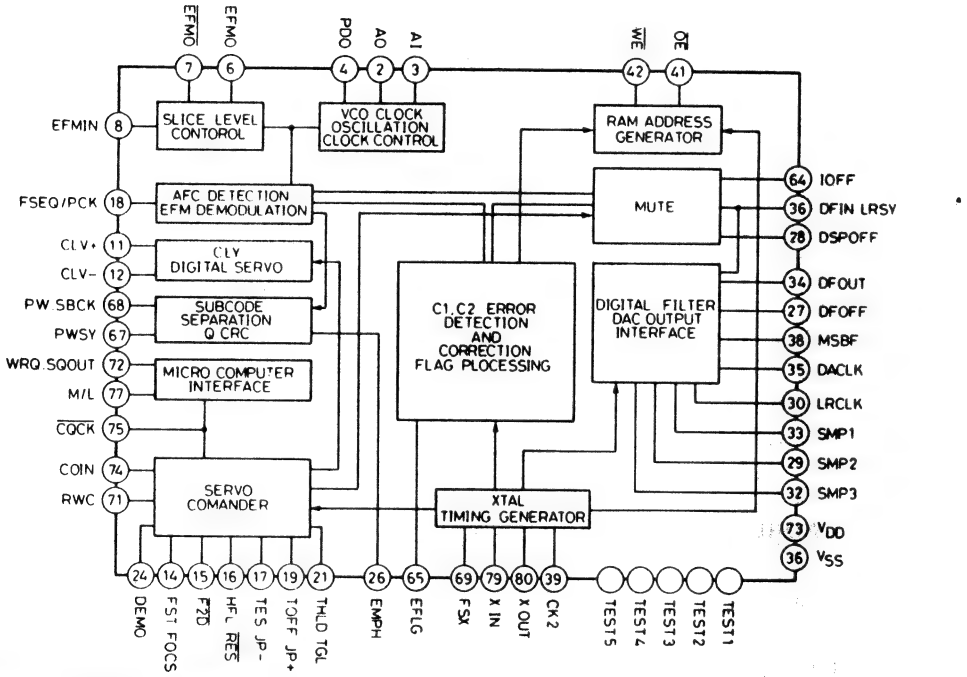
Output 2



Output 3



IC401 IC7860N (CD Digital Signal Processor)



Pin Function of IC401 (LC7860N)

Pin No	Pin Name	I/O		Functions
1	TEST1	I	–	Test pin. Normally not connected.
2	AO	O	–	VCO is generated by connecting resonance circuit between AI and AO. (8.6436MHz) is phase output with EFM signal, and is set to increase frequency when +".
3	AI	I	–	
4	PDO	O	–	
5	Vss	–	–	GND
6	EFMO	O	–	1 to 2Vpp HF signal is input to EFMIN. Output from EFMO and BFMO passes through amplitude limiter and reverse phase EFM signal is obtained from both. This performs slice level control.
7	$\overline{\text{EFMO}}$	O	–	
8	EFMIN	I	–	
9	TEST2	I	–	Test pin. Normally not connected.
10	VDD	–	–	+5V
11	CLV+	O	–	Disk motor control output
12	CLV–	O	–	

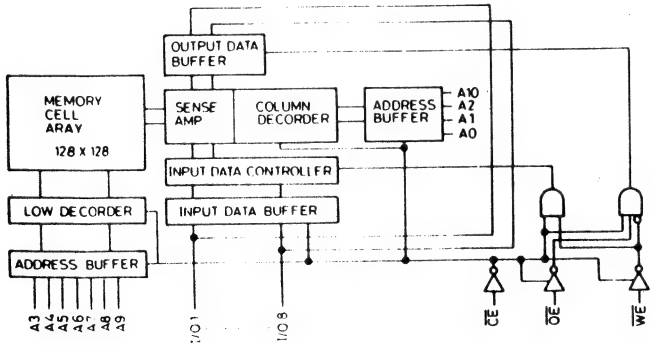
Pin No.	Pin Name	I/O		Functions
13	FOCS	O	–	Focus servo is off when FOCS is HIGH. The lens is lowered by FST and then FST is HIGH, the lens is gradually pulled up. FOCS is reset when FZD is generated. For focus-in.
14	FST	O	–	
15	FZD	I	–	
16	HFL	I	*1	*1 Kick pulses, JP+ and JP–, are generated according to track jump command. A jump of the pre-scribed number of tracks is (1, 4, 16 64). *2 When 4.3218MHz PCK monitor terminal/DEMO is HIGH both SYNC detected from EFM signal and SYNC of counter are the same at HIGH.
17	TES	I	*1	
18	FSEQ/PCK	O	*2	
19	TOFF	O	*1	
20	TGL	O	*1	
21	THLD	O	*1	
22	JP+	O	*1	
23	JP–	O	*1	
24	DEMO	I	–	Set and sount output adjustment pin function.

IC BLOCK DIAGRAM (4/7)

Pin No	Pin Name	I/O		Functions
25	TEST3	I	–	Test pin. Normally not connected.
26	EMPH	O	–	De-emphasis is necessary when HIGH.
27	DFOFF	I	–	ON/OFF switch for digital filter. No filtering when HIGH.
28	DSPOFF	I	–	Test pin Normally not connected.
29	SMP2	O	*3	*3 Signal output to DAC and signal for L/R switching and sample hold. *4 +5V *5 Signal output for CDROM *6 CDROM sync signal
30	LRCLK	O	*3	
31	VDD	–	*4	
32	SMP3	O	*3	
33	SMP1	O	*3	
34	DFOUT	O	*3	
35	DACLK	O	*3	
36	DFIN	I/O	*5	
37	LRSY	O	*6	
38	MSBF	I	*3	
39	CK2	O	–	2.1609MHz
40	AD10	O	*7	*7 RAM address output *8 Output state when $\overline{WE}$ = L and input state when $\overline{WE}$ = H. $\overline{OE}$ is for input/outptu control.
41	$\overline{OE}$	O	*8	
42	$\overline{WE}$	O	*8	
43	AD9	O	*7	
44	AD8	O	*7	
45	AD7	O	*7	
46	AD6	O	*7	
47	AD5	O	*7	
48	AD4	O	*7	
49	AD3	O	*7	
50	AD2	O	*7	
51	AD1	O	*7	
52	AD0	O	*7	
53	DB7	I/O	*9	*9 DB7 to DB0: connected to RAM data pins. *10 GND
54	DB6	I/O	*9	
55	DB5	I/O	*9	
56	Vss	–	*10	
57	DB4	I/O	*9	
58	DB3	I/O	*9	
59	DB2	I/O	*9	
60	DB1	I/O	*9	
61	DB0	I/O	*9	

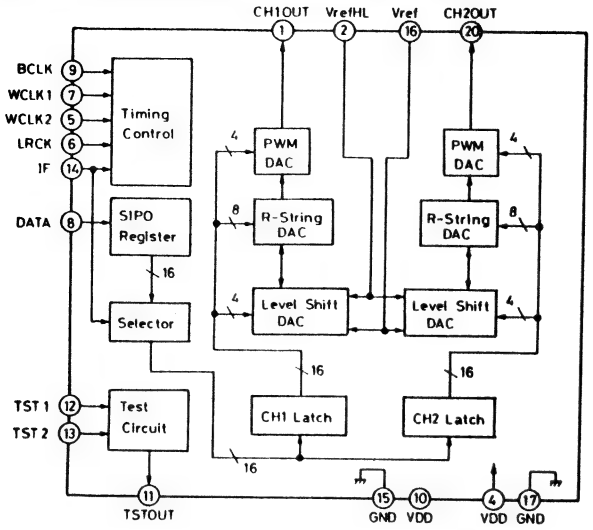
Pin No.	Pin Name	I/O		Functions
62	TEST4	I	–	Test pin. Normally not connected.
63	TEST5	I	–	
64	IOFF	I	–	For CD ROM. HIGH time interpolation and holding of previous value not performed.
65	EFLG	O	–	C1/C2 1-level and 2-level error correction
66	PW	O	–	PWSY is SYNC combining main and sub and change from HIGH to LOW is taken externally. The P, Q, R, S, T, U, V, and W subcodes are read by sending 8 clock pulses to SBCK.
67	PWSY	O	–	
68	SBCK	I	–	
69	FSX	O	–	7.35kHz sync signal output
70	WRQ	O	*11	*11 WRQ goes HIGH when data of subcode Q passes CRC check. This is taken externally and the data from SQOUT is read by sending $\overline{CQCK}$. When data is required with LSB first, M/L is driven LOW. After the microprocessor sets RWC to HIGH, the command is given by output synchronized with the $\overline{CQCK}$ command data. *12 Goes LOW once when power is turned on.
71	RWC	I	*11	
72	SQOUT	O	*11	
73	VDD	–	*11	
74	COIN	I	*11	
75	$\overline{CQCK}$	I	*11	
76	$\overline{RST}$	I	*12	
77	M/L	I	*11	
78	Vss	–	–	GND
79	XIN	I	–	Pin for connection to 8.6436MHz crystal oscillator
80	XOUT	O	–	

IC402 LC3517AS-15 (C MOS 8-BITX2048-WORD STATIC RAM)



TERMINAL NAME	TERMINAL DESCRIPTION
A0~A10	ADDRESS INPUT
I/O1~I/O8	DATA INPUT/OUTPUT
$\overline{CE}$	CHIP ENABLE INPUT
$\overline{WE}$	WRITE ENABLE INPUT
$\overline{OE}$	OUTPUT ENABLE INPUT
Vcc	+5V POWER SOURCE
GND	GROUND

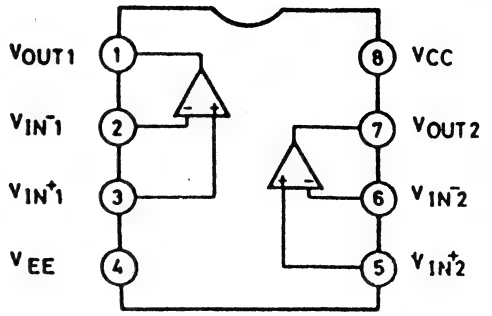
IC501 LC7880 (16-bit D-A Converter for CD)



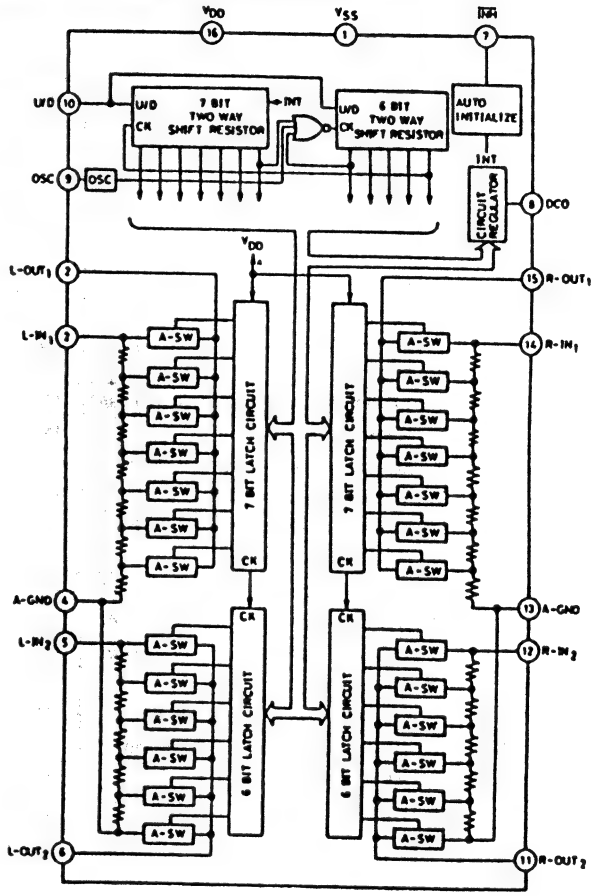
Pins Functions of IC501 (LC7880)

Pin No.	Pin name (Symbol)	Description
1	CH1OUT	Output Terminal of CH-1.
2	VrefH	Input Terminal of Reference Voltage "H".
3	NC	No Connection
4	VDD	+5V Power Supply Terminal.
5	WCLK2	Input Terminal of Word-Clock 2. When IF is in "L", internal signal for latching CH-1 data of digital signal is made by using trailing edge WCLK2. When IF is in "H", it needs WCLK2 to "L".
6	LRCK	Input Terminal of LR Clock. Indicates CH-1 and CH-2 of input digital audio data : indicate CH-1 when LRCK is in "H". indicate CH-2 when LRCK is in "L".
7	WCLK1	Input Terminal of Word-Clock 1. When IF is in "L", internal signal for latching CH-2 data of digital signal is made by using trailing edge of WCLK1. When IF is in "H", internal signal for latching CH-1 and CH-2 data of digital signal is made by trailing edge of WCLK1.
8	DATA	Input Terminal of Digital Audio Data. When IF is in "L", digital audio data is input in bit serial from LSB. When IF is in "H", digital audio data is input in bit serial from MSB.
9	BCLK	Bit-Clock Terminal. This clock is for reading digital audio data into LSI in bit serial and is for PWMDAC.
10	VDD	+5V Power Supply Terminal.
11	TSTOUT	Output Terminal for Testing. Ordinarily, leave this terminal open.
12	TST1	Input Terminal for Testing. Ordinarily, ground these terminals.
13	TST2	Input Terminal for Testing. Ordinarily, ground these terminals.
14	IF	Interface Select Terminal. When IF is in "L", digital audio data is input from LSB side. When IF is in "H", digital audio data is input from MSB side.
15	GND	Ground Terminal
16	VrefL	Input Terminal of Reference Voltage "L".
17	GND	Ground Treminal
18	NC	No Connection
19	NC	No connection
20	CH2OUT	Output Terminal of CH-2.

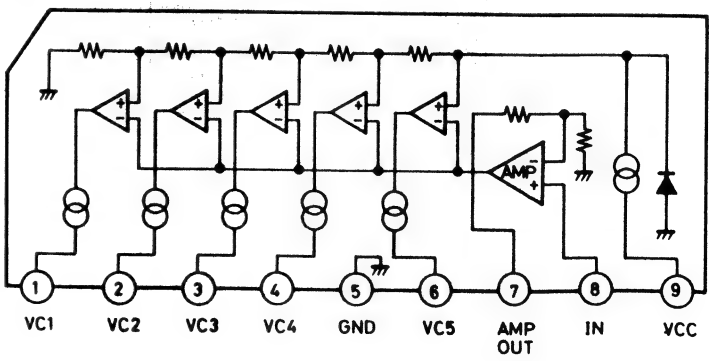
IC503, 504, 505 LA6458DS (Dual Operational Amp.)



IC506 TC9154 AP (Electronic Volume)

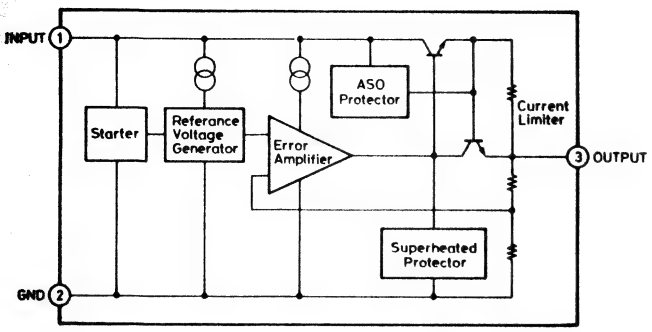


IC507 LB1403 (Level Meter)

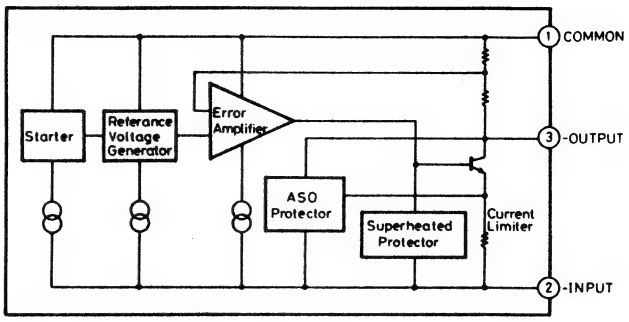


IC BLOCK DIAGRAM (5/7)

IC601 L78M05 (5V 3-Terminal Constant Voltage Regulated Power Supply)

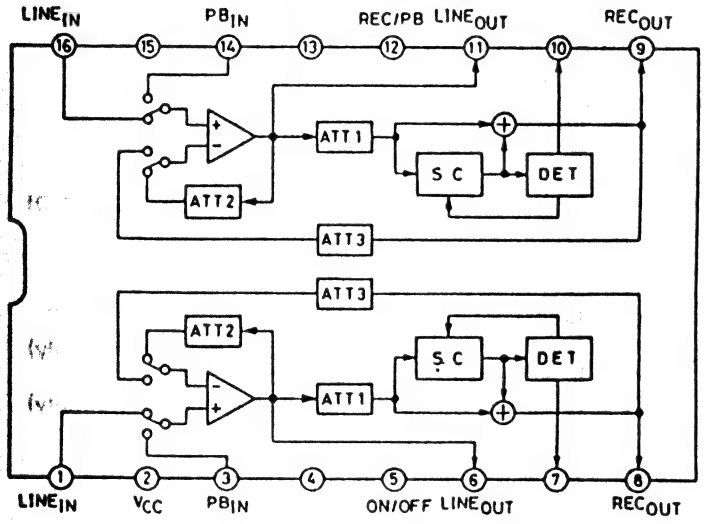


IC602 L79M05 (–5V 3-Terminal Constant Voltage Regulated Power Supply)

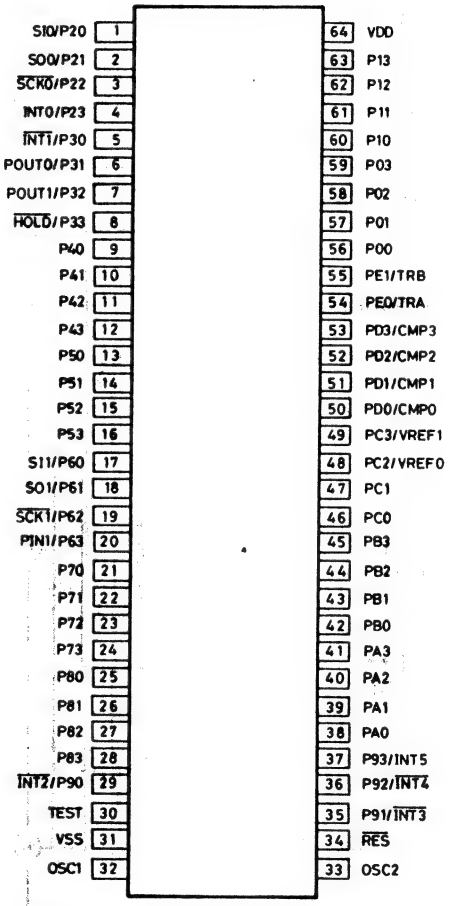


<DECK SECTION>

IC501 CXA1101 (Dolby B-TYPE Noise Reduction)



IC601 LC66508 (4-BIT C-MOS 1-CHIP Microprocessor)



Pin Function of IC601 (LC66508)

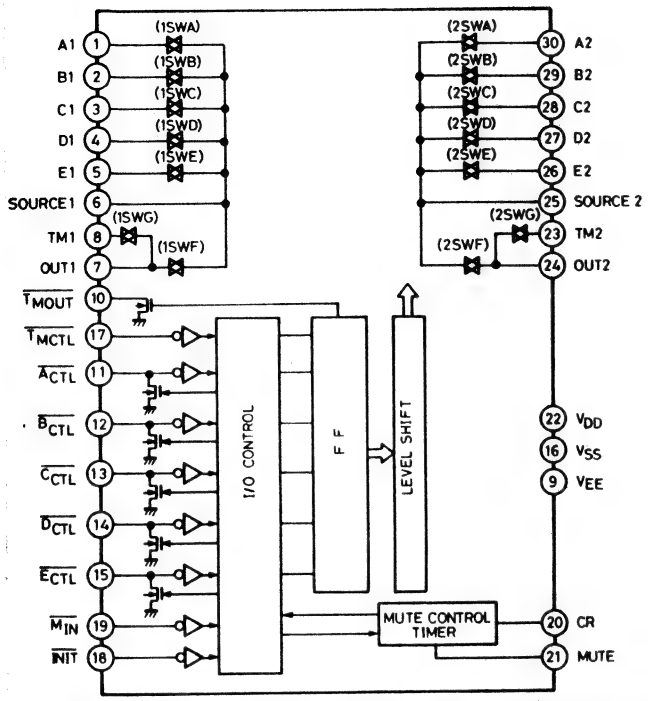
Pin No.	Pin Name	Description	Low	High	I/O
1	PDOWN	Power Down	ON		I
2	DATA	Connect to +5V through the resistor, 10K ohm			
3	CLK	Gnd			
4	POWER	Connect to +5V through the resistor, 10K ohm			
5	PMUTE	Play Mute control	OFF	ON	O
6	RMUTE	Rec Mute control	OFF	ON	O
7	PLAYAB	A Mecha, B Mecha play signal control	PLAYA	PLAYB	O
8	AMSSIN	AMSS signal input	non-signal,	signal	I
9	A-FFLED	Gnd			
10	A-REWLED	Connect to +5V through the resistor, 10K ohm			
11	B-FFLED	Gnd			
12	B-REWLED	Connect to +5V through the resistor, 10K ohm			
13	A-RLED	A Mecha, Reverse LED	ON		O
14	B-RLED	B Mecha, Reverse LED	ON		O
15	A-ANTREC	A-ANTREC SW for B Mecha Forward	REC	ANTREC	I
16	B-ANTREC	B-ANTREC SW for B Mecha Reverse	REC	ANTREC	I
17	B-REEL	B Mecha Reel Pulse			I
18	B-PACK	Detecting terminal for cassette (TAPE B Mecha)	Being	Not	I
19	B-FF/REWSW	Detecting terminal for FF, REW mode in B Mech	FF	REW	I
20	B-PLAYSW	Detecting terminal for play mode (B Mecha)	PLAY		I
21	B-P2	B Mecha FF, REW Plunger control	ON		O
22	B-P1	B Mecha Play Plunger control	ON		O
23	B-MOTOR	B Mecha Motor switching	ON		O
24	B-HIGH	B Mecha Motor speed switching	Low	High	O
25	A/BLED	Open			
26	DUBLED	Normal speed dubbing LED	ON		O
27	HDUB	High speed dubbing LED	ON		O
28	IRIND	Open			
29	A-REEL	A Mecha, Reel pulse			I
30	TEST	Gnd			
31	VSS	Gnd			
32	OSC1	Pin for connection to 4.19 MHz OSC			I
33	OSC2	Pin for connection to 4.19 MHz OSC			O

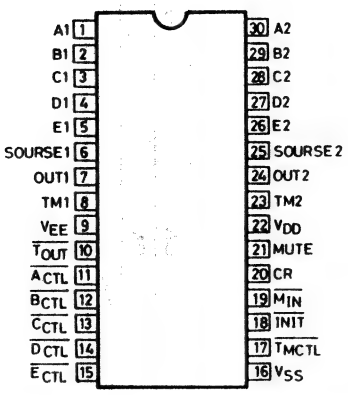
Pin No.	Pin Name	Description	Low	High	I/O
34	RESET	Input terminal of system reset			I
35	A-PACKSW	Detecting terminal for cassette, (TAPE A Mecha)	Being,	Not	I
36	A-FF/REWSW	Detecting terminal for FF, REW mode (A Mecha)	FF	REW	I
37	A-PLAYSW	Detecting terminal for play mode (A Mecha)	PLAY		I
38	A-P2	A Mecha, FF. REW Plunger	ON		O
39	A-P1	A Mecha, Play Plunger	ON		O
40	A-MOTOR	A Mecha, Motor switching	ON		O
41	A-HIGH	A Mecha, Motor speed switching	Low	High	O
42	A-FLED	A Mecha, Forward LED.	ON		O
43	B-FLED	B Mecha, Forward LED	ON		O
44	REC LED	B Mecha, Record LED	ON		O
45	MOTELED	B Mecha, Record mute LED	ON		O
46	KEY1	KEY1 FPLAY, A Mecha Forward Play			I
47	KEY2	KEY2 RPLAY, A Mecha Reverse Play			I
48	KEY3	KEY1, 2 STOP, A Mecha Stop KEY1, 3 FF. A Mecha Fast Forward KEY2, 3 REW, A Mecha Rewind			I
49	KEY8	KEY5, 6 REW, B Mecha Rewind KEY7 REC, B Mecha Record KEY8 MUTE, B Mecha Record mute			I
50	KEY4	KEY4 FPLAY, B Mecha Forward Play			I
51	KEY5	KEY5 RPLAY, B Mecha Reverse Play			I
52	KEY6	KEY4, 5 STOP, B Mecha Stop			I
53	KEY7	KEY4, 6 FF, B Mecha Fast Forward			I
54	DIR	Direction SW, Low ⇄, Mid ↴↴, Hi ↻			I
55	TIMER	TIMER standby SW, Low-PLAY, Mid-OFF, Hi-REC			I
56	KEY9	KEY1, 9 DUB Normal speed dubbing KEY3, 9 HDUB High speed dubbing KEY4, 9 CDUB Normal speed CD dubbing KEY6, 9 HCDUB High speed CD dubbing			I
57	KEY OUT	Switching to segment diodes and KEY IN			O
58	RESET	Counter reset SW			
59	IRIN	Remocon data signal			I
60	DUBIN	Dubbing control input			I
61	CSTOP	CALL STOP input			I
62	DUBOUT	Dubbing control			O
63	AF	Auto Function control			O
64	VDD	Power source			

IC BLOCK DIAGRAM (6/7)

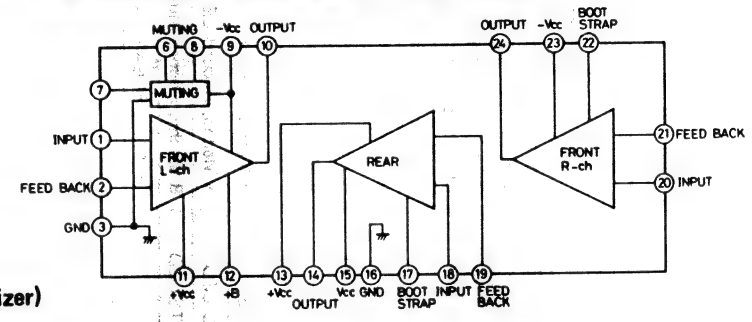
< AMP. SECTION >

IC701 LC7818 (2-Pole 4-Position Analog Function Switch)

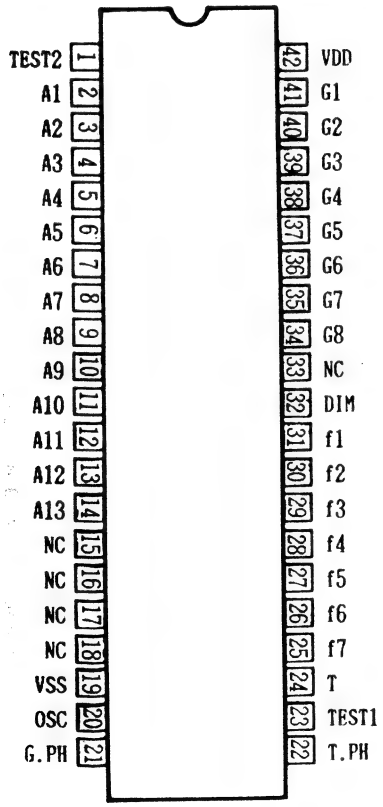


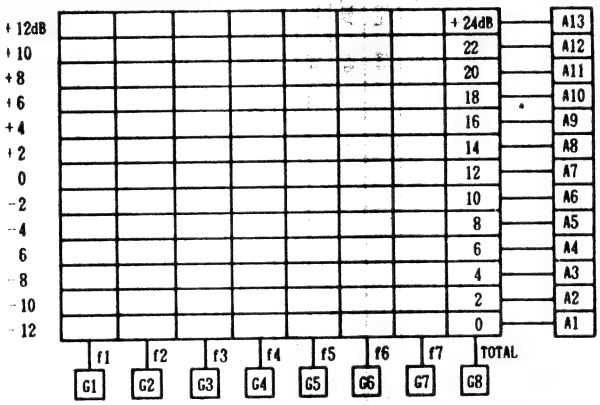


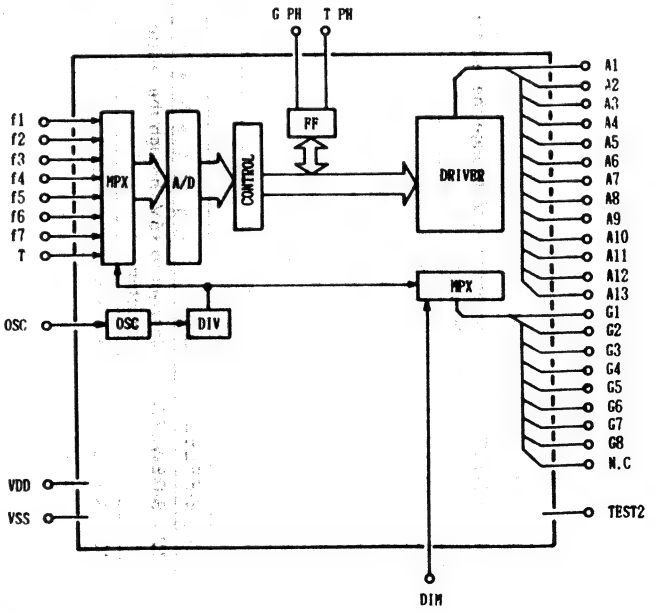
IC705 STK4157II (3 Channel AF Power Amp.)

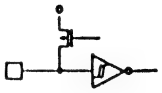
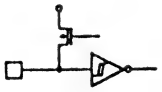
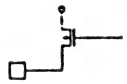


IC706 LC7566 (Flourecent Display Driver of Spectrum Analizer)

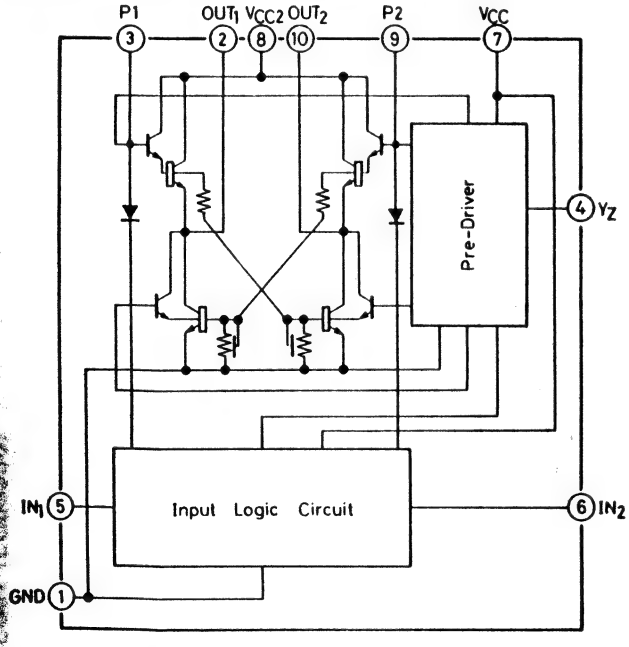






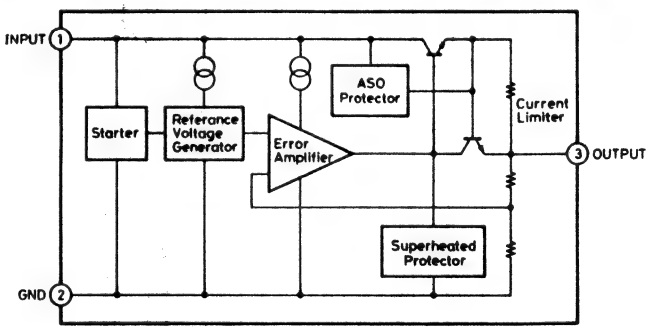
Pin name	Pin No.	Pin format	Instruction
VDD	42		Power source, +5V type
VSS	19		Power source, Gnd
G.PH	21		Connect to C, R for the time constant to determine the peak hold reset time is Spectrum Analyzer display of G.E.Q.
T.PH	22		Connect to C, R for the time constant (peak hold reset time: Total display)
DIM	32		Dimmer control terminal Dimmer ON: 1, OFF: 0
f1 ~ f7 T	31 ~ 25 24		Rectifier voltage of Music signal input for terminal
OSC	20		Connect to C, R for the oscillator.
A1 ~ A13	2 ~ 14		Open drain driver, Grid control
G1 ~ G9	44 ~ 33		Open drain driver, Grid control
TEST1	23		Test terminal, normal → Vss
TEST2	1		Test terminal, normal → Open or connected through the resistor; 1M ohm.
NC	15 ~ 18, 33		Open

IC901 LB1641 (Motor Driver)

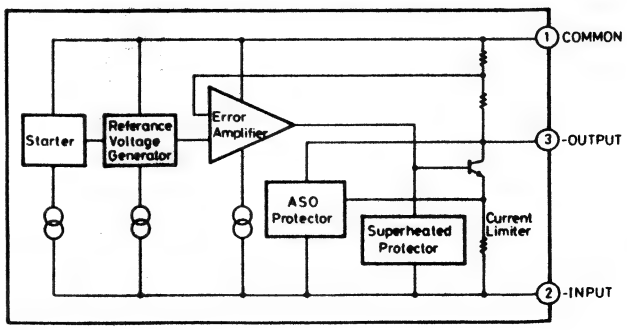


Input		Output		Action
IN_1	IN_2	OUT_1	OUT_2	
0	0	0	0	Brake
1	0	1	0	Normal(Reverse)Rotary
0	1	0	1	Reverse(Normal)Rotary
1	1	0	0	Brake

IC902 NJM78M15FA
(15V 3-Terminal Constant Voltage Regulated Power Supply)
IC904, 905 AN7812F
(12V 3-Terminal Constant Voltage Regulated Power Supply)

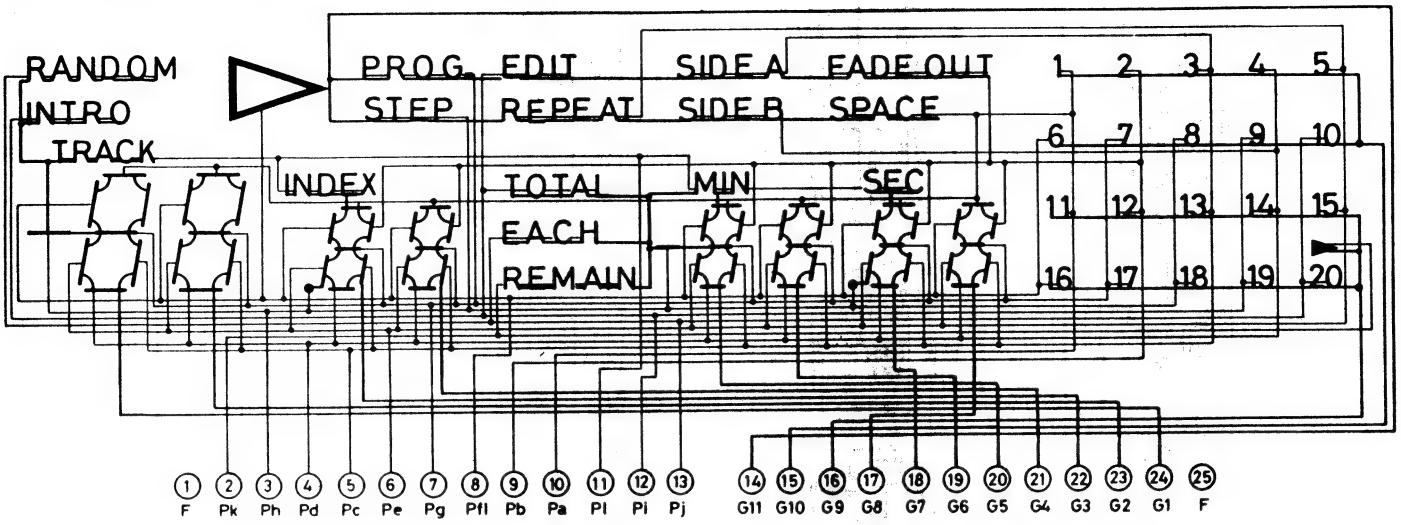


IC903 NJM79M15FA
(–15V 3-Terminal Constant Voltage Regulated Power Supply)

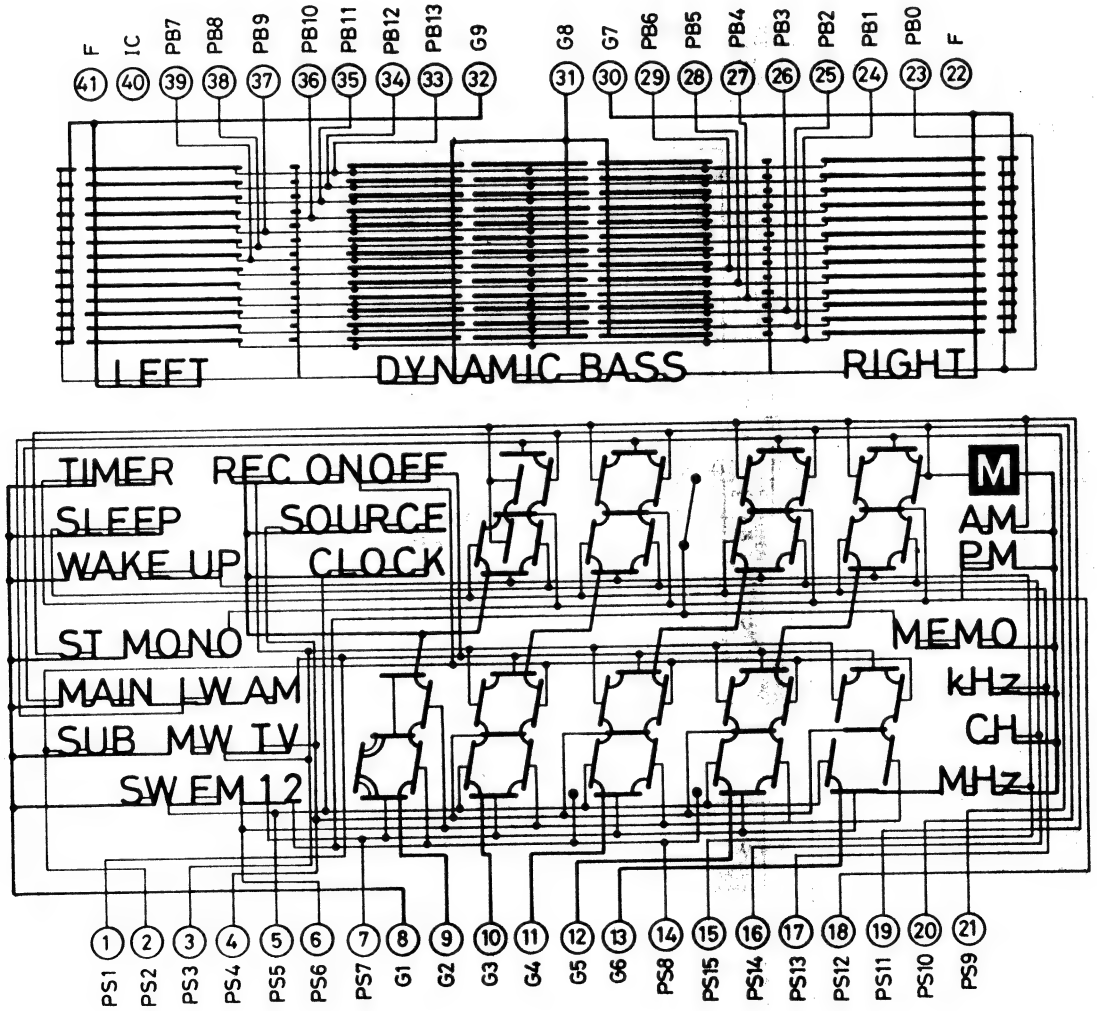


IC BLOCK DIAGRAM (7/7)

CP5395GR (Flourecent Display) ..... CD FL PCB



CP5394GR (Flourecent Display) ..... TUNER FL PCB



27. VOLTAGE TABLE (CD)

Transistor & IC

	Q101			Q102			Q201			Q202			Q203			Q204		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	4.9	4.8	0	0	4.0	0	0	-0.6	0.3	0	0	0.6	0	2.2	0	0	0	4.8
STOP	4.9	0	4.8	0	4.0	0.3										0	0	4.8

	Q205			Q206			Q322			Q323			Q324			Q325		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	0	0	4.8	0	0	0.7	0	4.9	0	0	5.6	0	0	4.2	0	0	-5.8	0.7
STOP	0	0	4.8				0	4.9	0	0	5.6	0	0	4.2	0	0	-5.8	0.7

	Q326			Q327			Q351			Q352			Q353			Q354		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	4.9	4.9	5.6	-5.0	-5.0	-5.8	0	2.5	0	3.4	-1.5	3.0	0	2.0	0	3.4	-1.4	3.1
STOP	4.9	4.9	5.6	-5.0	-5.0	-5.8	0	3.0	0	2.3	-2.0	2.5	0	3.1	0	2.3	-1.5	2.0

	Q355			Q356			Q358			Q359			Q360			Q361		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	0	0	4.9	0	4.9	0	0	2.3	0	2.3	-1.9	2.3	0	0	4.9	0	4.9	0
STOP																		

	Q501			Q504			Q505			Q506			Q507			Q601		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	4.0	4.9	4.7	0	0	-4.9	0	0	-4.9	1.3	4.9	1.9	1.3	4.9	1.9	5.0	2.5	5.0
STOP	4.0	4.9	4.7	0	0	0.6	0	0	0.6	1.3	4.9	1.9	1.3	4.9	1.9	5.0	-4.9	5.0

	Q602			Q604		
	E	C	B	E	C	B
PLAY	0	5.0	0	2.5	2.5	1.9
STOP	0	5.0	0	1.3	-4.9	0

IC201.202

	1	2	3	4	5	6	7	8	9	10
PLAY	FL	FL	FL	FL	-9.8	FL	FL	FL	FL	9.7
STOP	0	0	0	0	-9.8	0	0	0.3	0.3	9.7

IC301

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PLAY	FL	FL	FL	FL	4.9	4.8	-	-	-	4.8	4.0	4.0	-	4.0	*4.8	**4.8
STOP	FL	-7.5	-7.8	FL	4.9	4.8	0	0	0	4.9	0	4.1	0	4.8	0	0

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
PLAY	4.8	0	4.9	FL	FL	FL	FL	FL	FL	FL	FL	FL	0	FL	FL	0
STOP	4.8	4.8	4.8	4.8	0	0	0	0	4.7	4.7	4.7	4.7	**5	FL	FL	0

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
PLAY	0	-	4.8	4.8	4.8	-	4.9	FL	FL	FL	FL	FL	FL	FL	FL	FL
STOP	0	-	4.8	4.8	4.8	-	4.9	-27	-27	-27	-27	-27	-27	-27	-27	-27

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
PLAY	FL	FL	-	-	2	FL	FL	-30	-3.7	FL	FL	FL	FL	FL	FL	4.9
STOP	-27	-27	0	0	2	-16	-29	-29	-29	-23	-27	-27	-27	-11	-11	4.9

* OPEN * CLOSE ** CD OFF

IC503

	1	2	3	4	5	6	7	8
PLAY	2.0	2.0	2.0	-5.0	2.0	2.0	2.0	5.0
STOP	2.0	2.0	2.0	-5.0	2.0	2.0	2.0	5.0

IC504.505

	1	2	3	4	5	6	7	8
PLAY	FL	FL	FL	-5.0	FL	FL	FL	4.9
STOP	0	0	0	-5.0	0	0	0	4.9

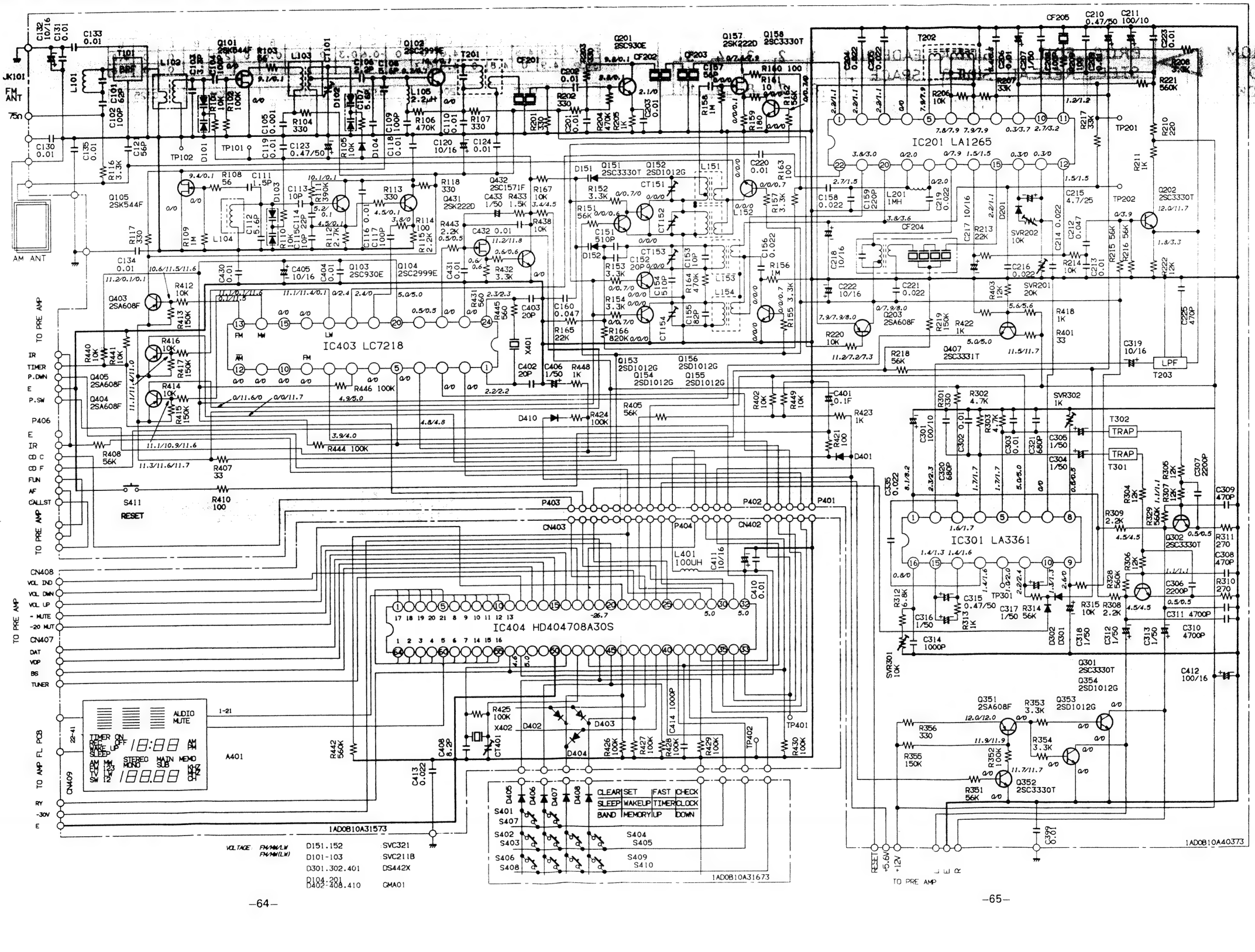
IC506

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PLAY	-4.9	0	FL	0	FL	FL	0	0	0	0	FL	FL	0	FL	0	4.9
STOP	-5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0

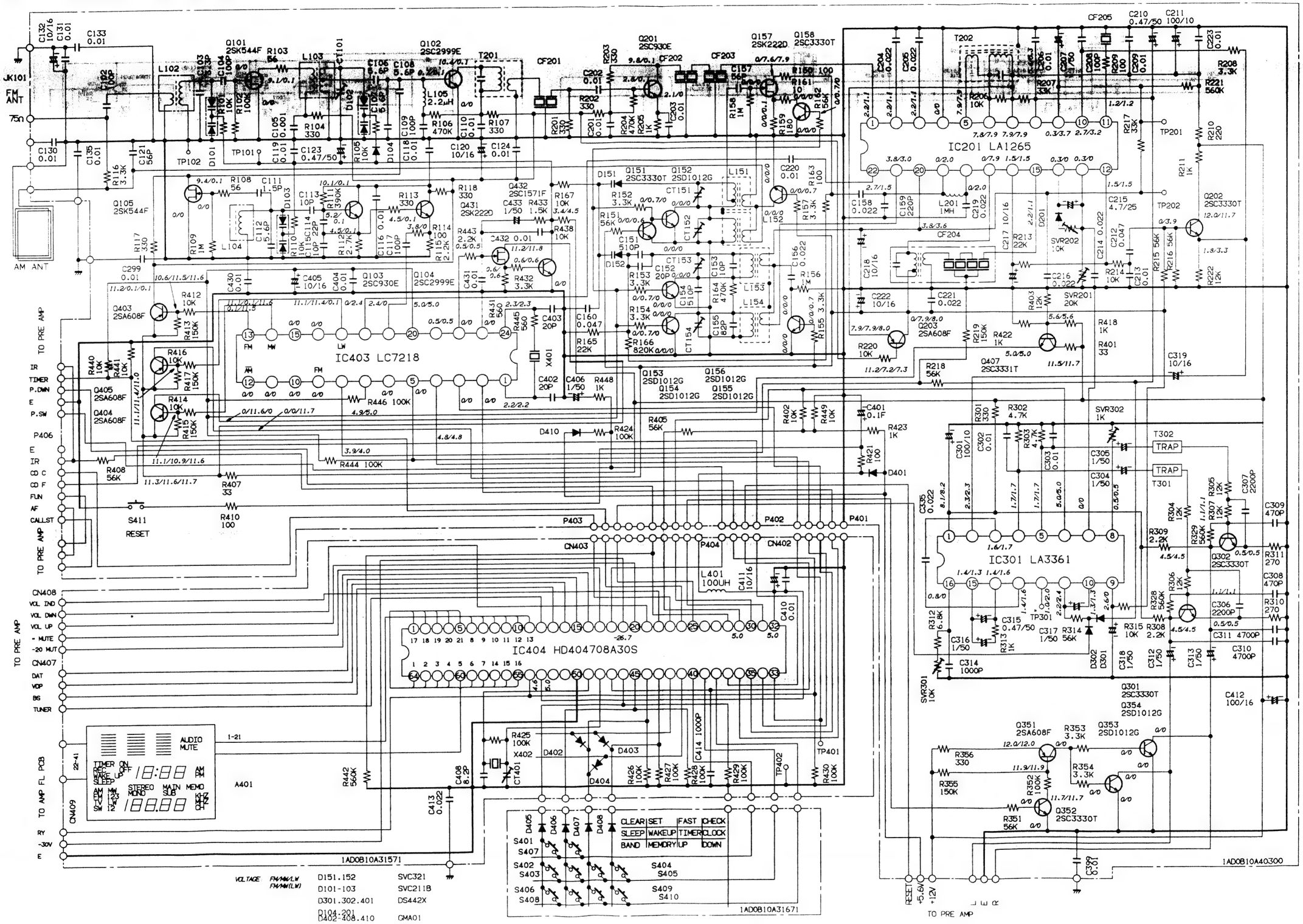
IC507

	1	2	3	4	5	6	7	8	9
PLAY	4.9	-	-	-	0	-	-	-	4.9
STOP	4.9	4.7	4.7	4.7	0	4.7	4.7	4.7	4.9

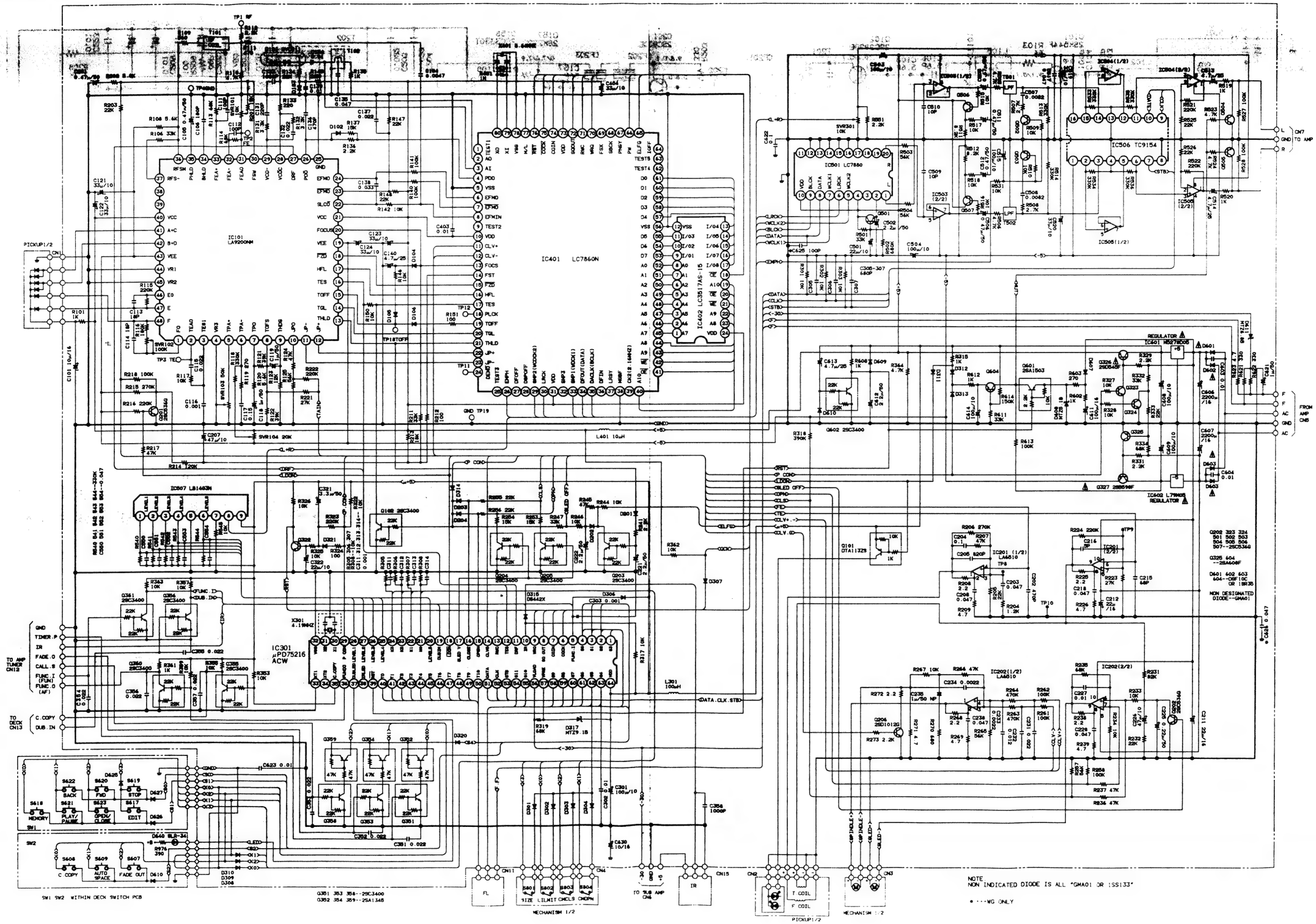
28. SCHEMATIC DIAGRAM (TUNER-ITALY/W. GERMANY)



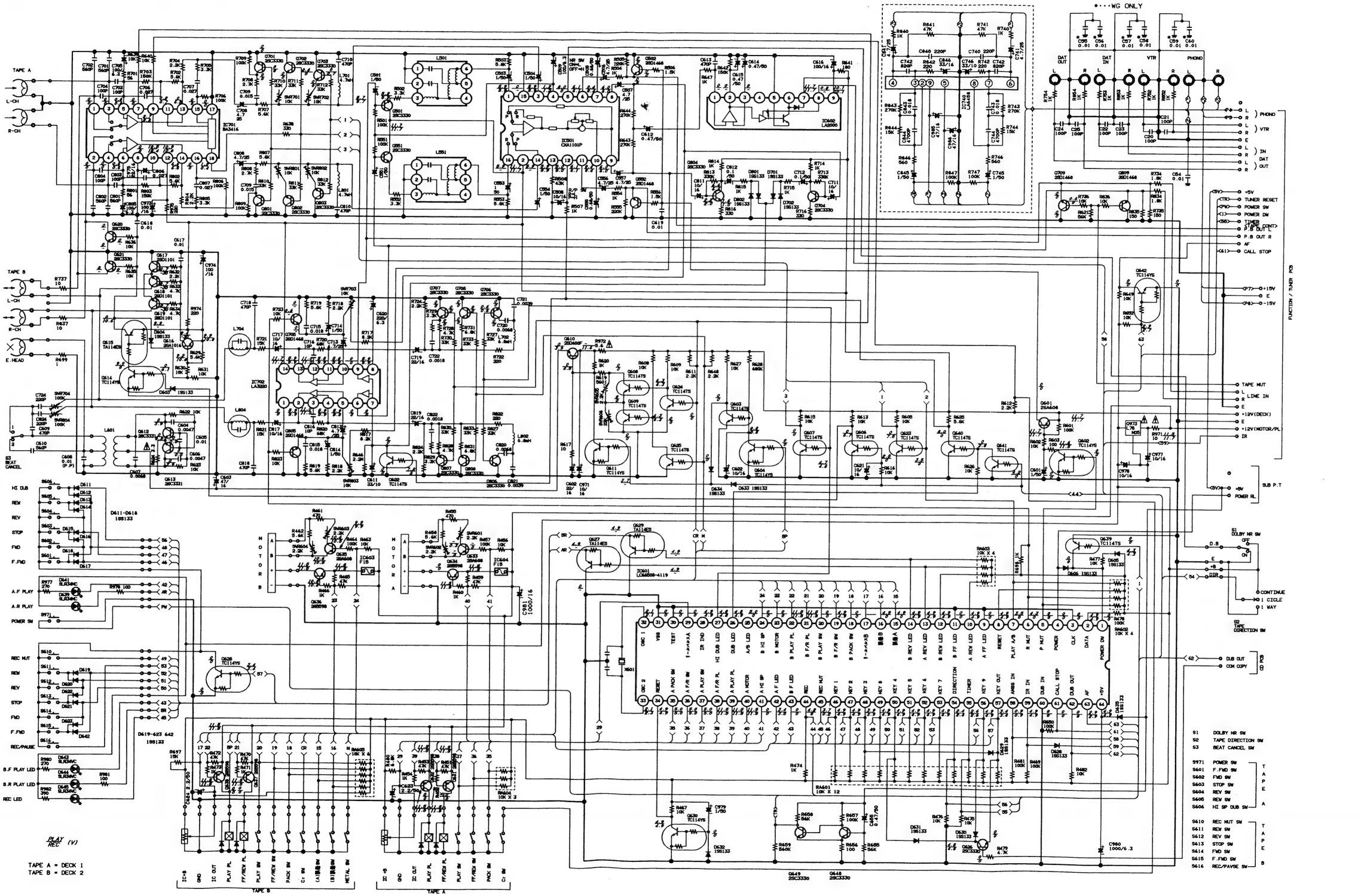
28. SCHEMATIC DIAGRAM (TUNER-SPAIN/EUROPE)



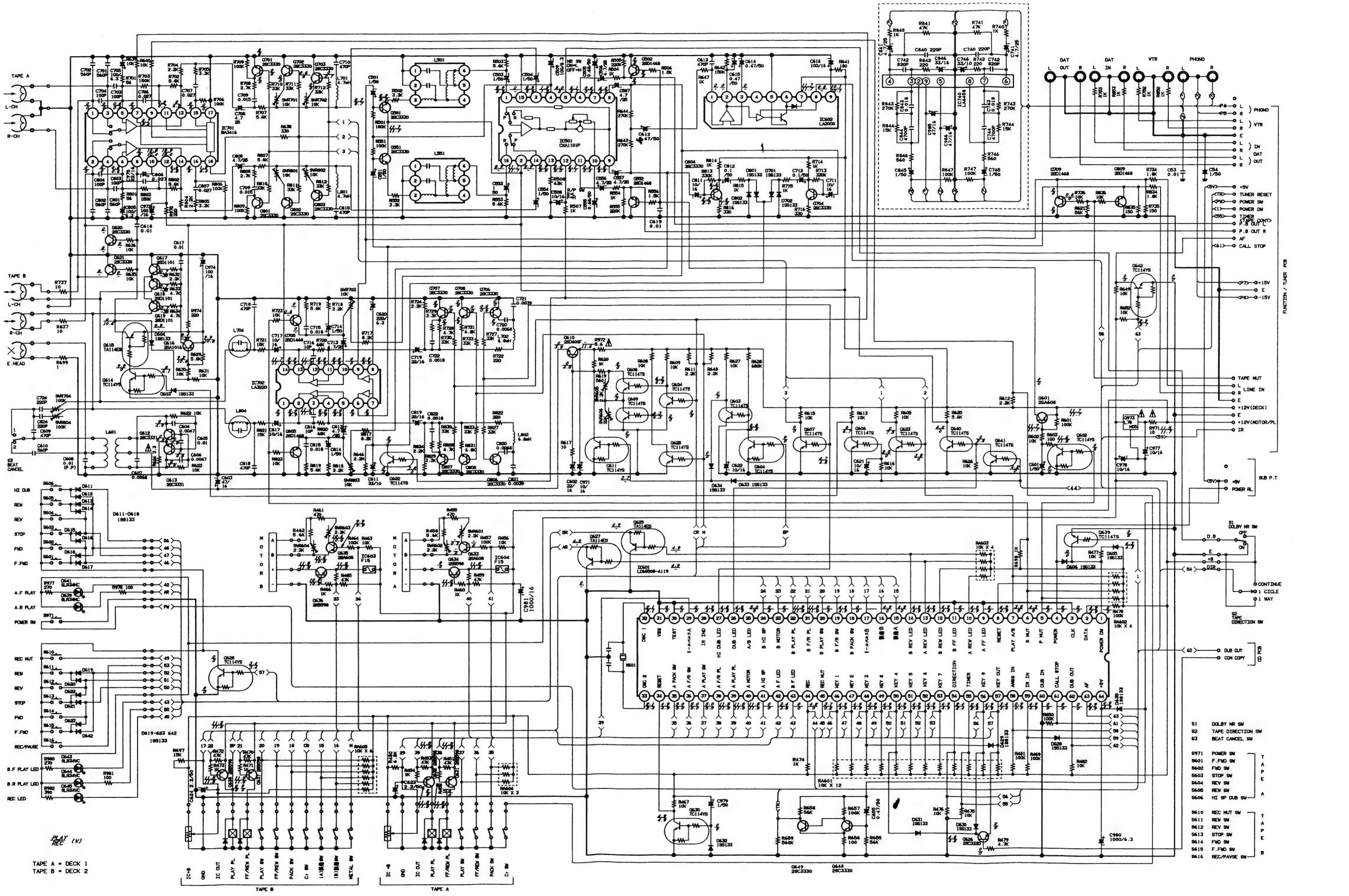
29. SCHEMATIC DIAGRAM (CD)



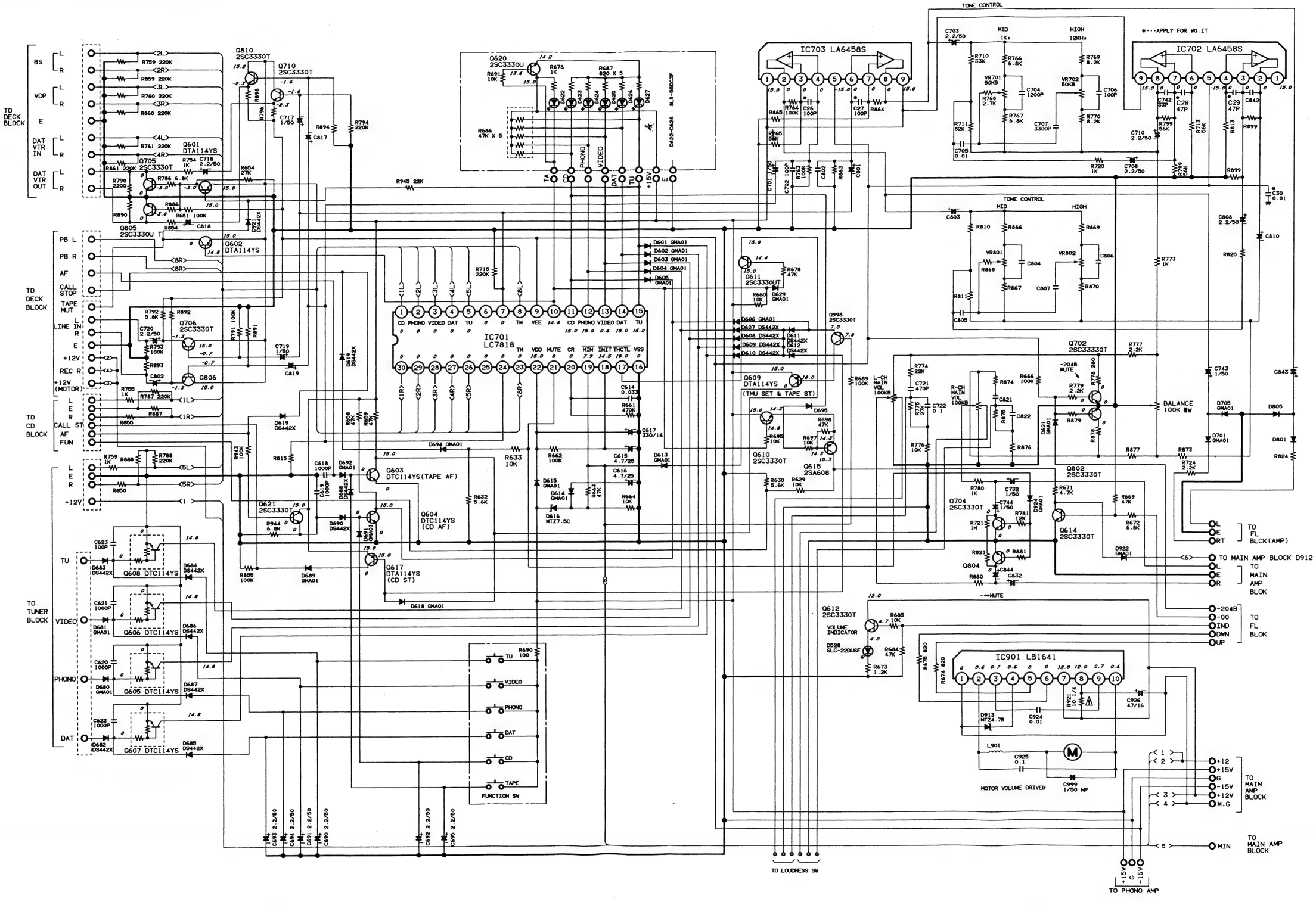
30. SCHEMATIC DIAGRAM (DECK-ITALY/W. GERMANY)



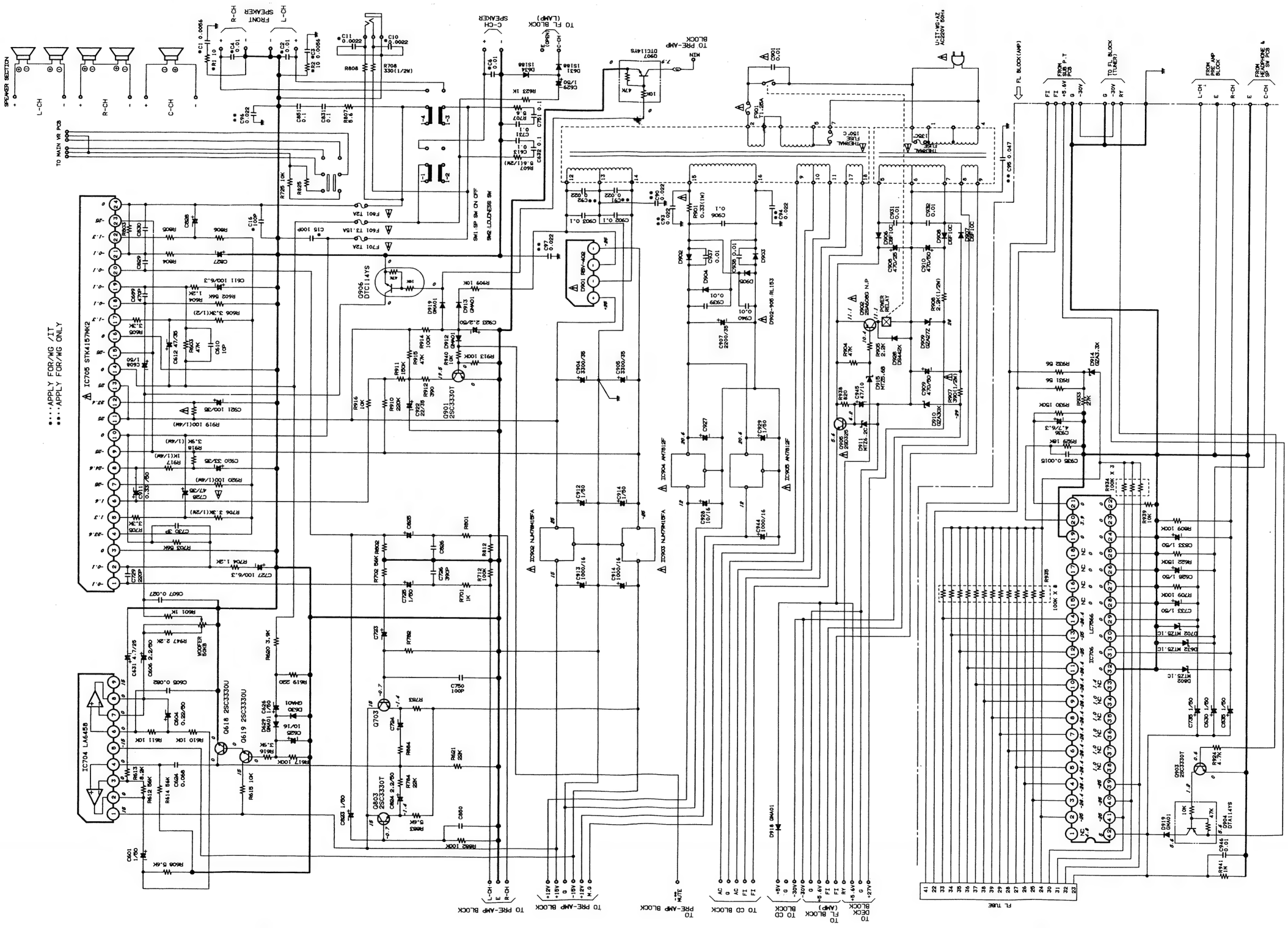
30. SCHEMATIC DIAGRAM (DECK-SPAIN/EUROPE)



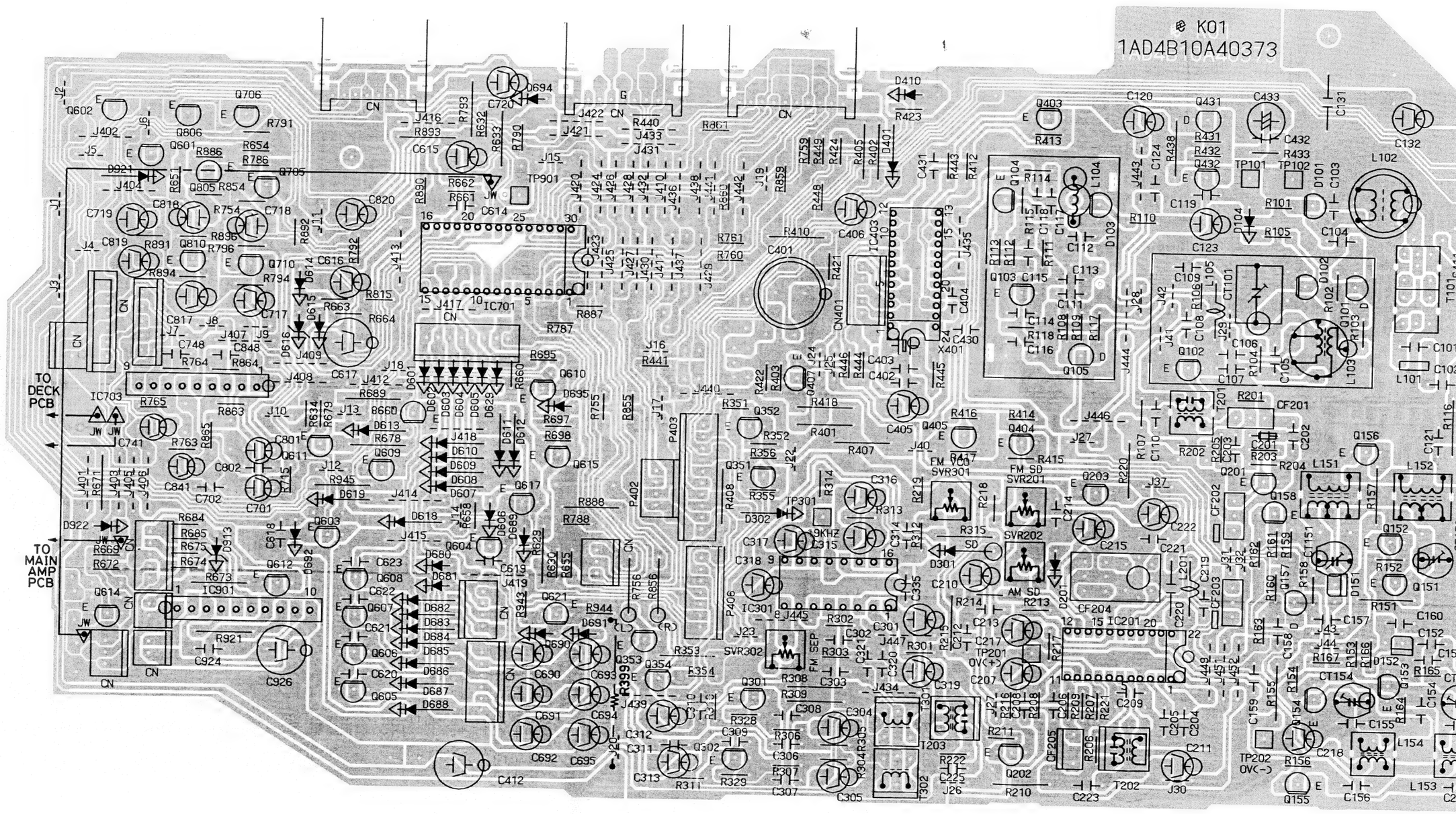
31. SCHEMATIC DIAGRAM (PRE AMP)



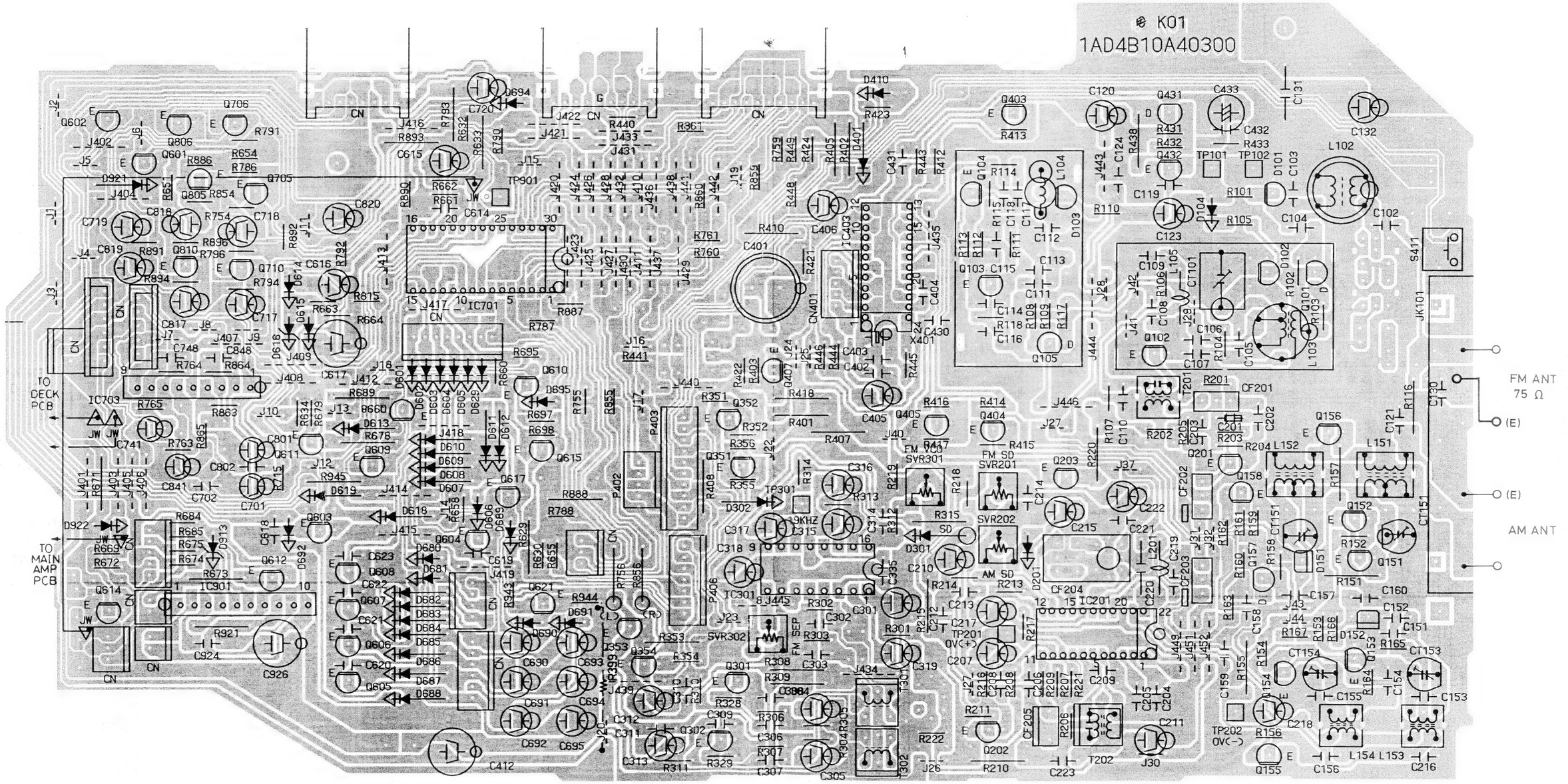
32. SCHEMATIC DIAGRAM (MAIN AMP)



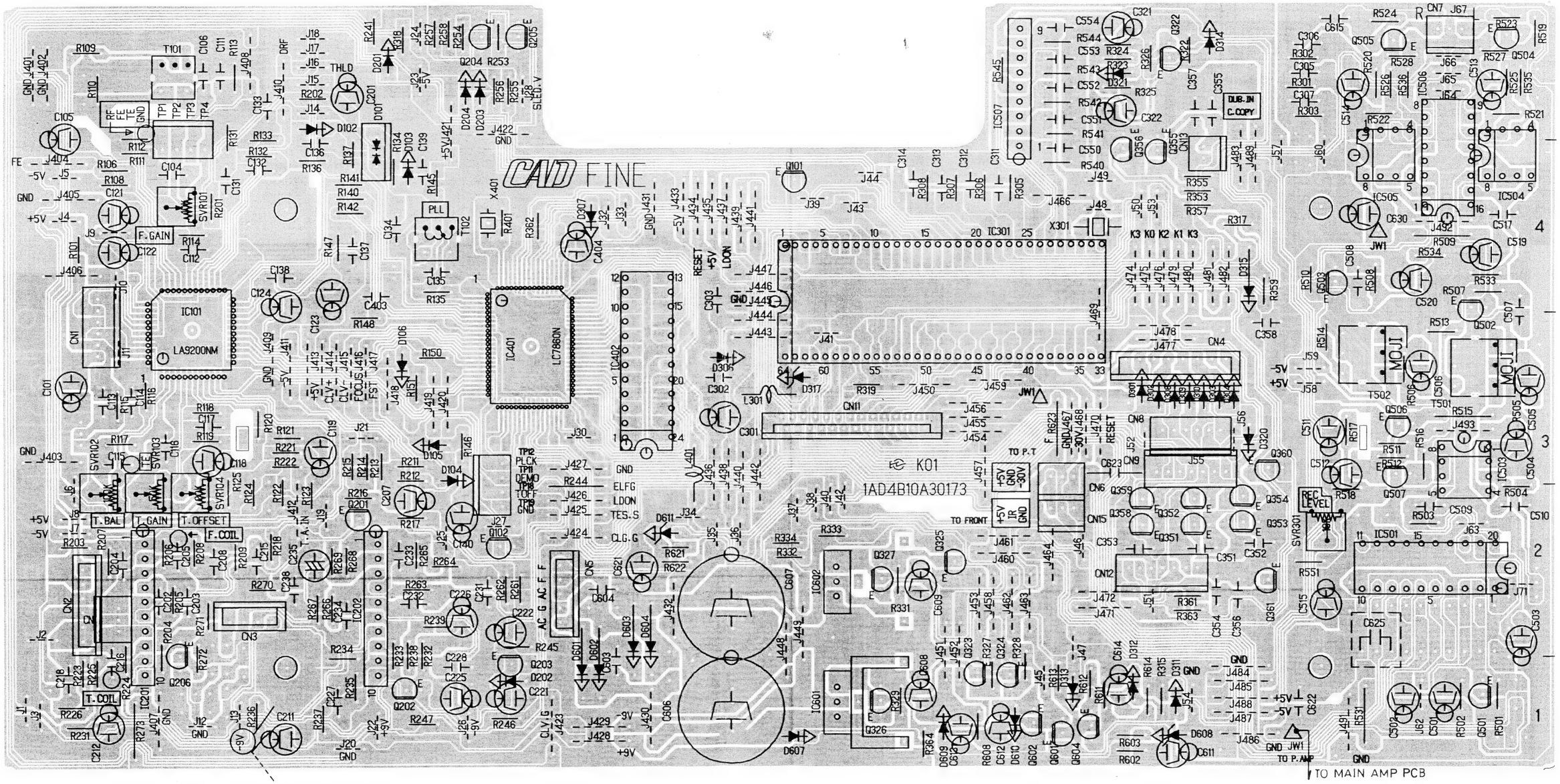
TU/PRE PCB


K01
1AD4B10A40373
TO DECK PCB
TO MAIN AMP PCB
IC701
IC703
IC901
IC301
IC201
CN401
X401
TP901
TP101
TP102
TP201
TP202
SVR301
SVR201
SVR202
SVR302
FM VCO
FM SD
AM SD
FM SEP
19KHZ
CF201
CF202
CF203
CF204
CT154
CT151
CT201

TU / PRE PCB

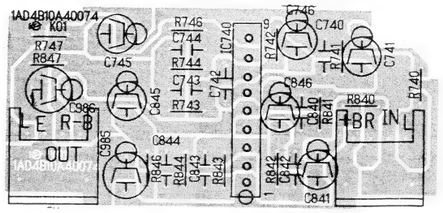

KO1
1AD4B10A40300
TO DECK PCB
TO MAIN AMP PCB
FM ANT 75 Ω
(E)
(E)
AM ANT
FM SD SVR301
FM SD SVR201
SVR202
AM SD
SVR302
FM SEP
19KHZ
TP201 OVC(+)
TP202 OVC(-)
IC301
IC201
IC701
IC703
IC901

CD MAIN PCB

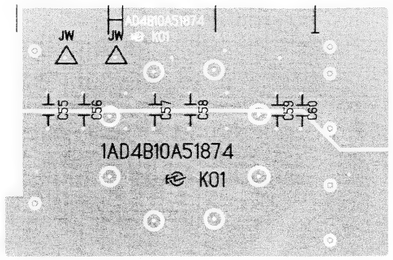


Note: C625—W.GERMANY
Note: C626—W.GERMANY

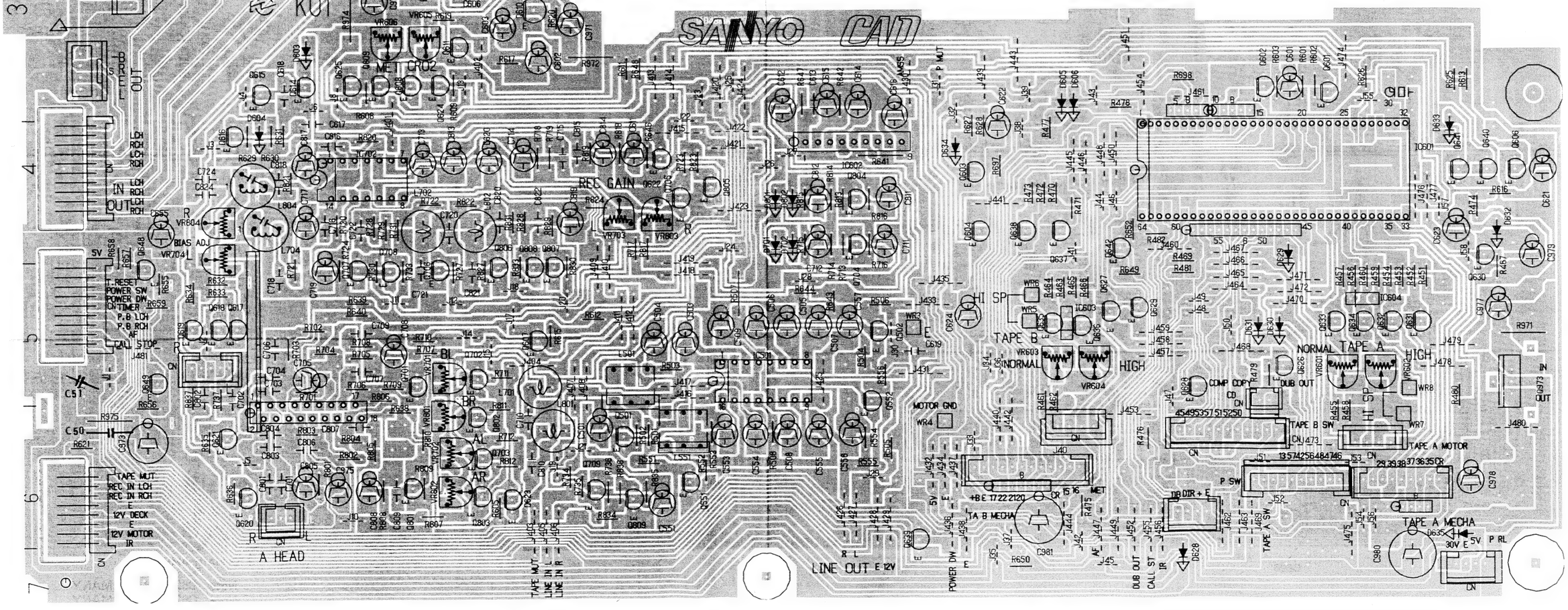
PHONO AMP PCB



FSZ PCB (W. GERMANY)

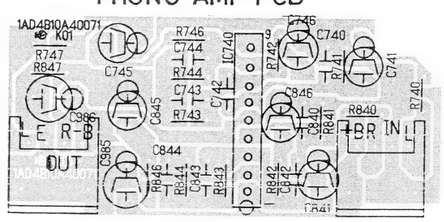


DECK PCB



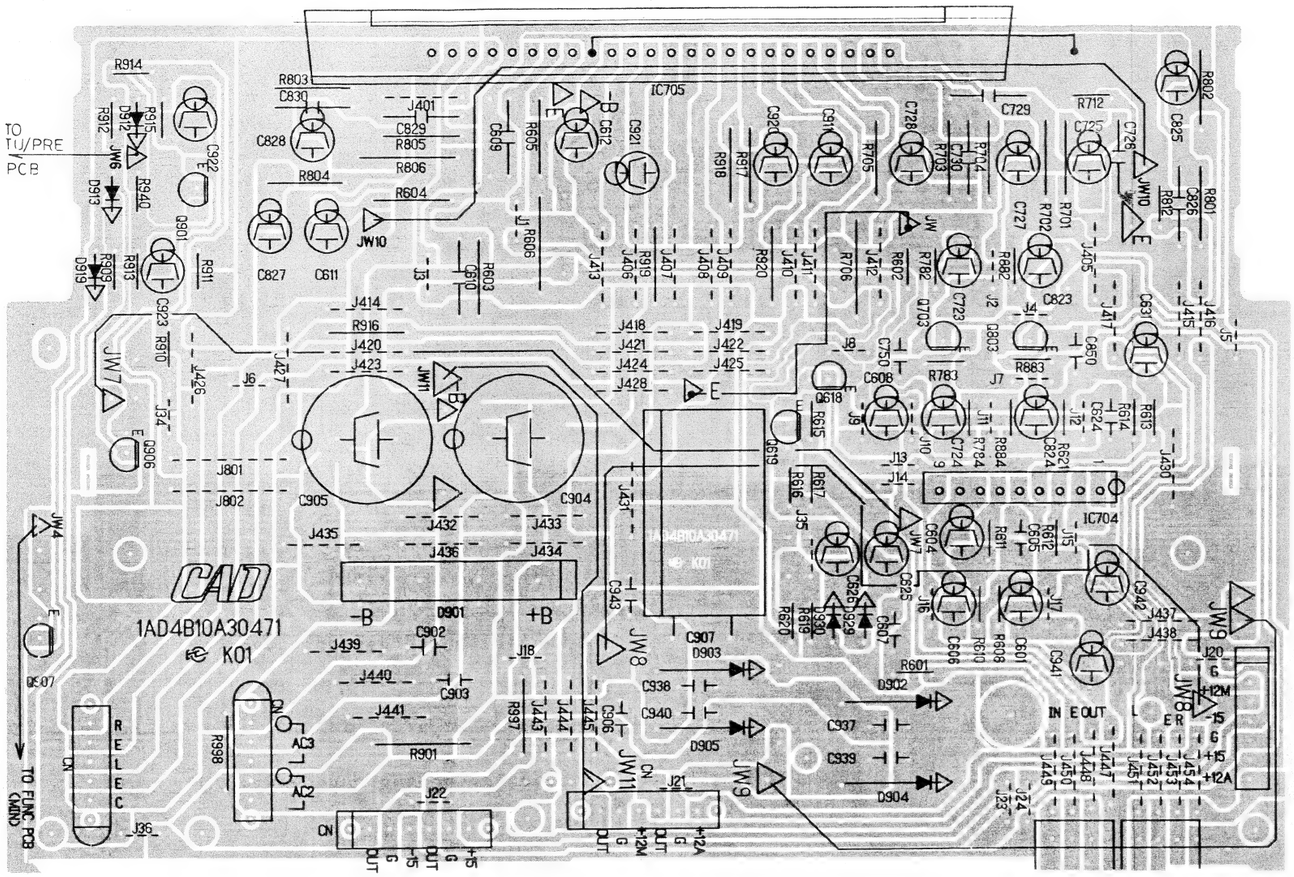
● PCB code, 1AD4B10A30274, 1AD4B10A40074, 1AD4B10A51874 . . . . W.GERMANY
1AD4B10A30273, 1AD4B10A40073 . . . . ITALY

PHONO AMP PCB

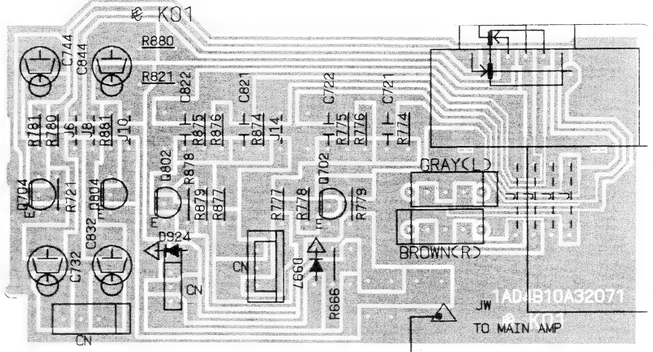


DECK PCB

MAIN AMP PCB



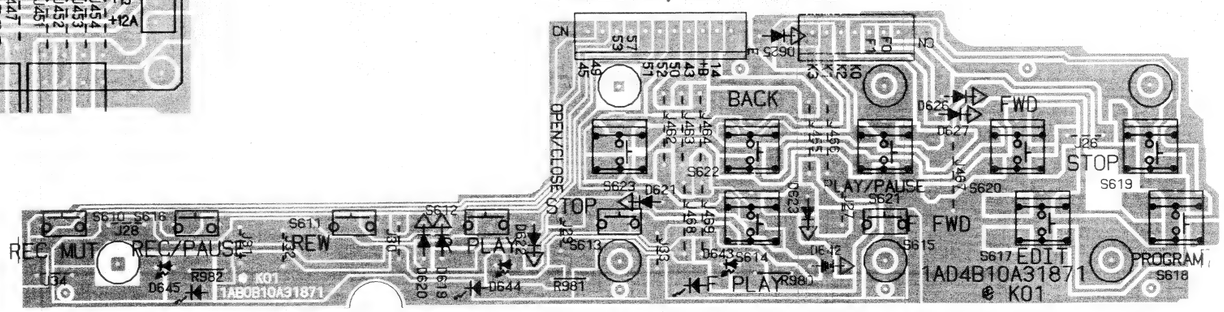
1AD4B10A32071
K01

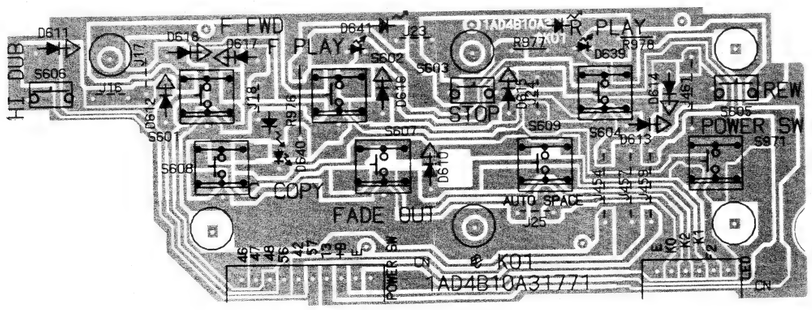


MAIN VR PCB

TO MAIN AMP PCB

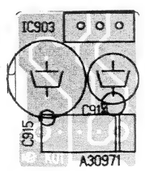
MECHA, TAPE-B PCB



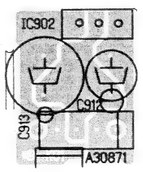


MECHA, TAPE-A PCB

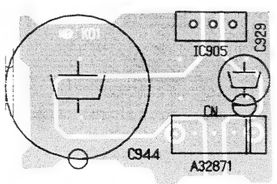
REGULATOR 2 PCB



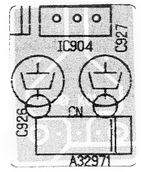
REGULATOR 1 PCB



+12V MOTOR PCB

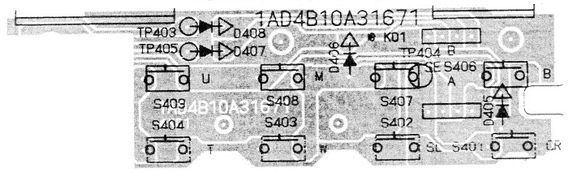


+12V TU/DECK AMP PCB

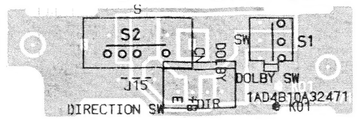


- PCB code, 1AD4B10A30471, ~ ,1AD4B10A32971 .... SPAIN/EUROPE
  1AD4B10A30473, ~ ,1AD4B10A32973 .... ITALY/W.GERMANY

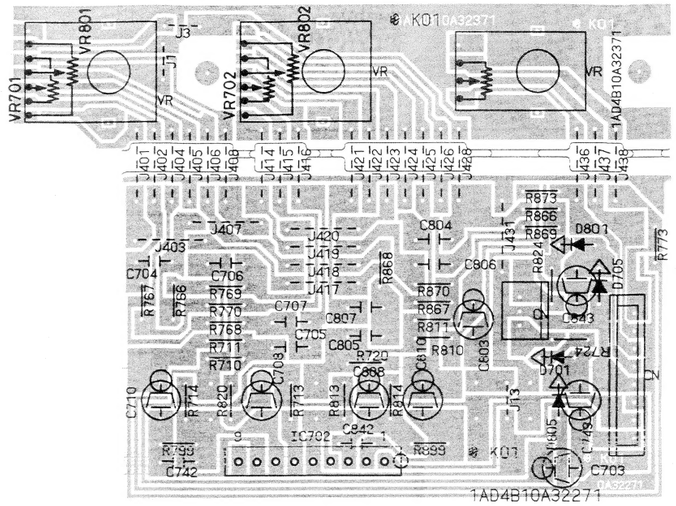
TUNER SW PCB



DOLBY SW PCB

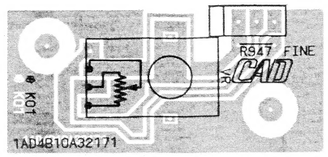


BASS/TREBLE PCB

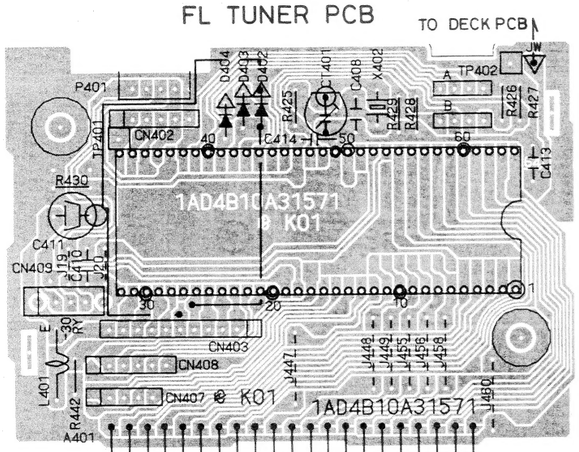


BASS/TREBLE CONT. PCB

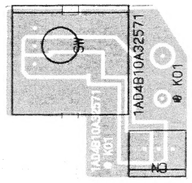
WOOFER PCB



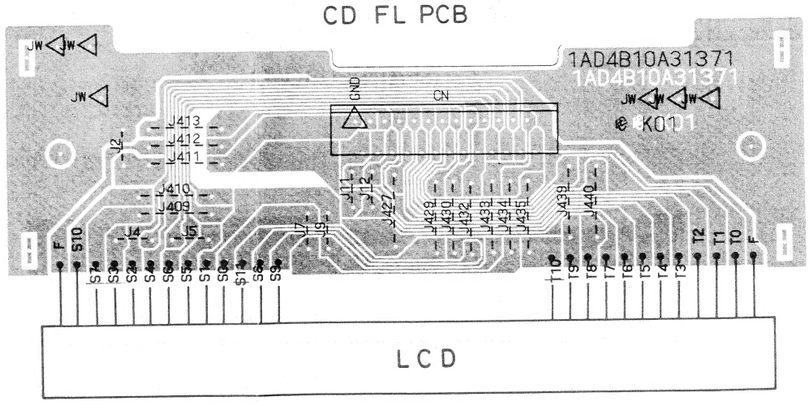
FL TUNER PCB



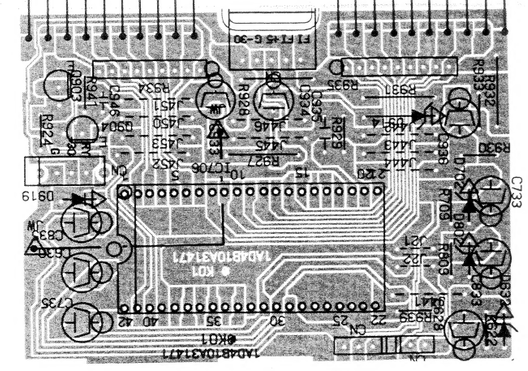
IR PCB



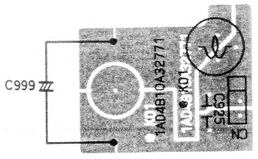
CD FL PCB



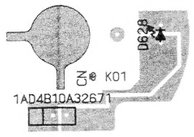
A401
LCD



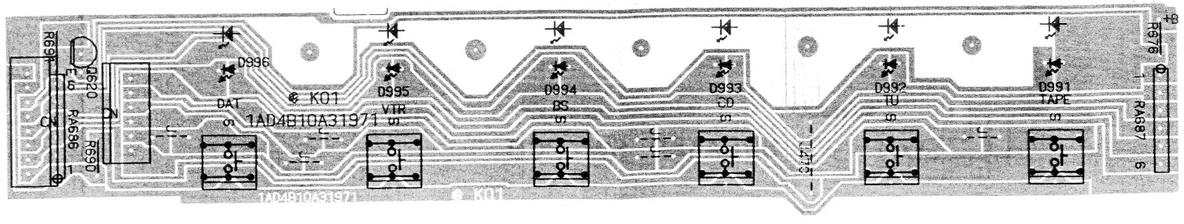
MAIN VR2 PCB



VR LED PCB

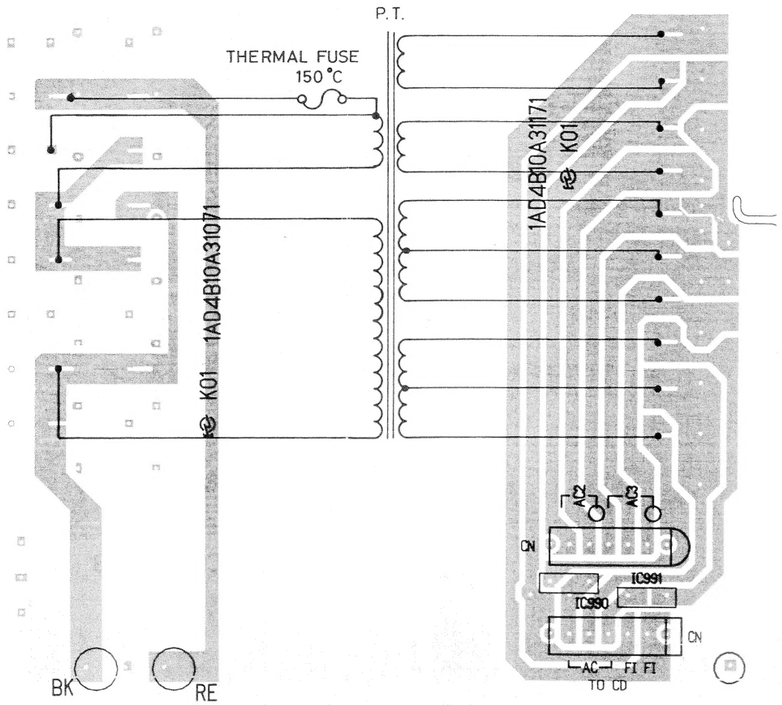


FUNCTION SW PCB



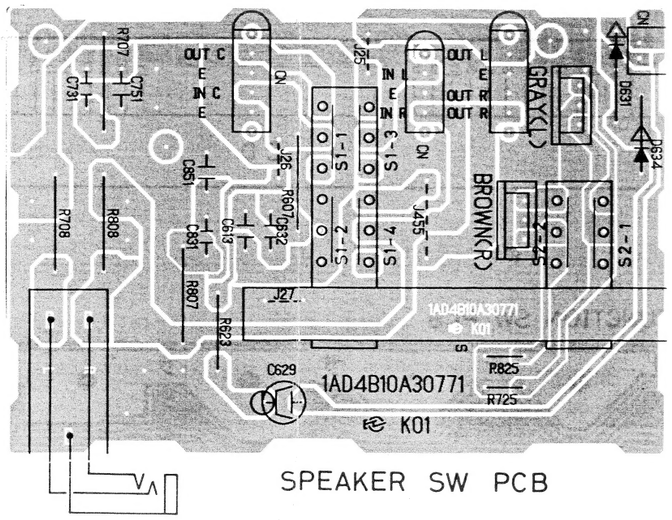
FL AMP PCB

● PCB code, 1AD4B10A31371, ~ ,1AD4B10A32771 . . . . SPAIN/EUROPE
1AD4B10A31373, ~ ,1AD4B10A32773 . . . . ITALY/EUROPE

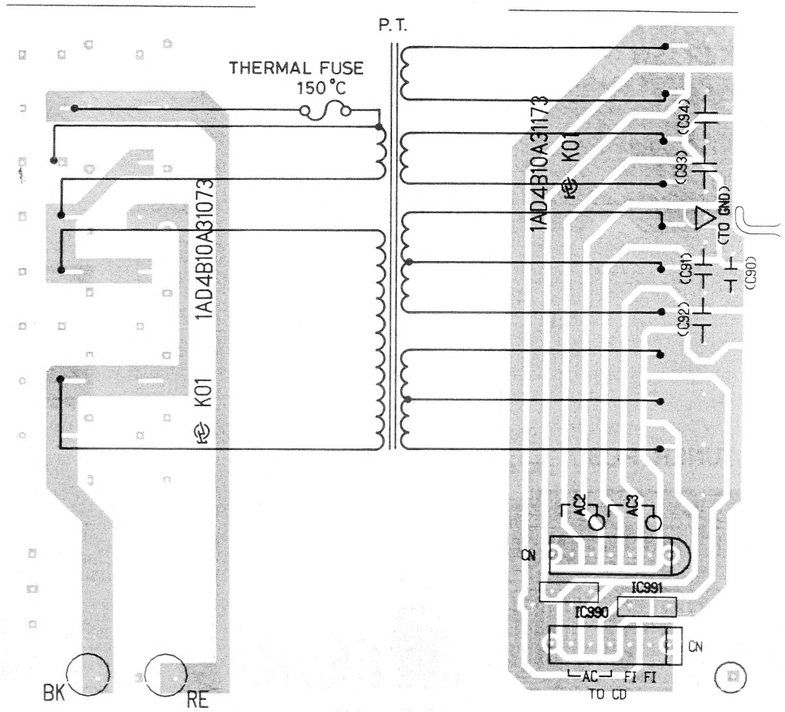


P.T. PRI. PCB P.T. SEC. PCB

(SPAIN/EUROPE)

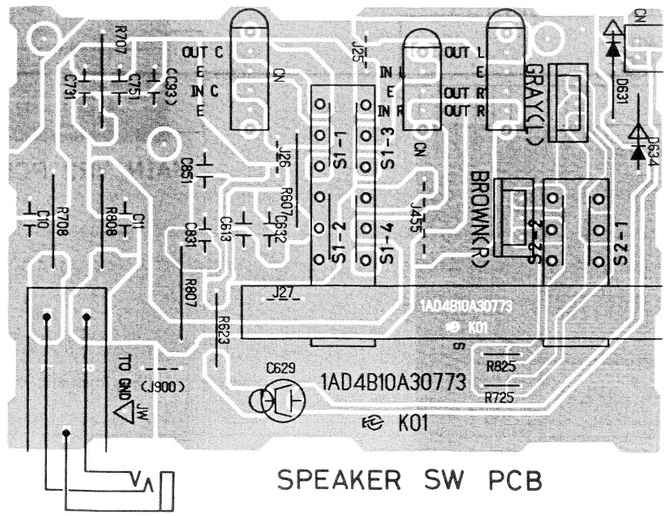


(SPAIN/EUROPE)



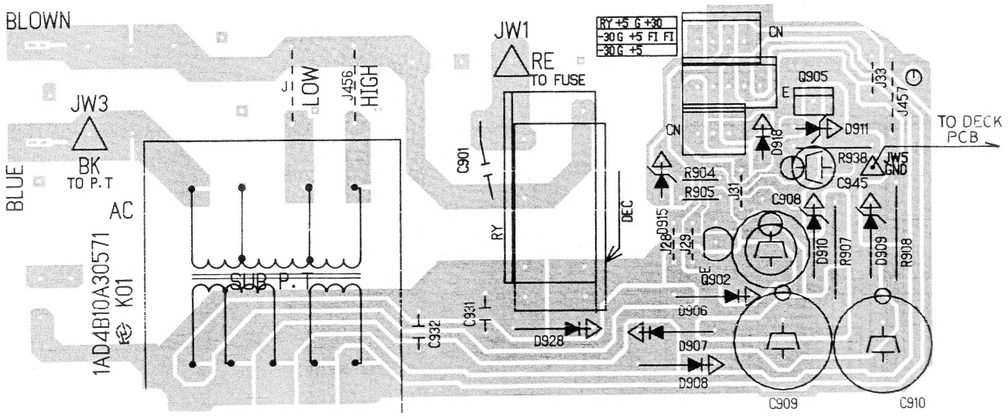
P.T. PRI. PCB P.T. SEC. PCB

(ITALY/W.GERMANY)



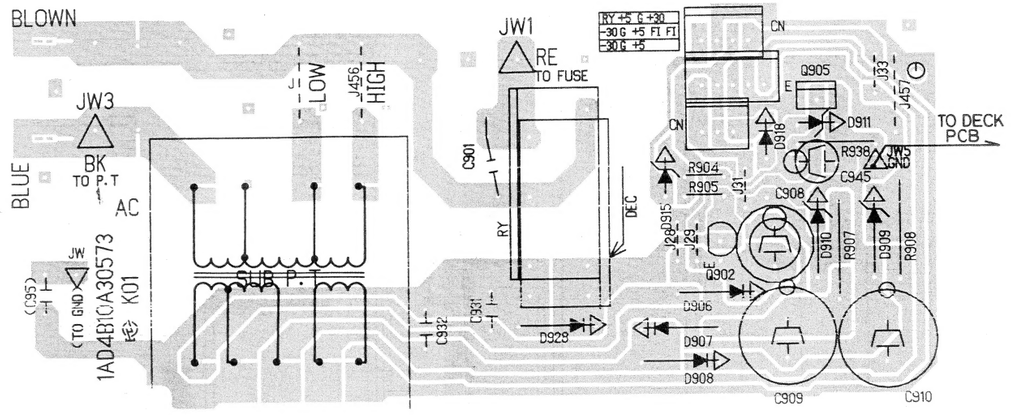
(ITALY/W.GERMANY)

38. WIRING DIAGRAM (SPEAKER/PT POWER SUPPLY)



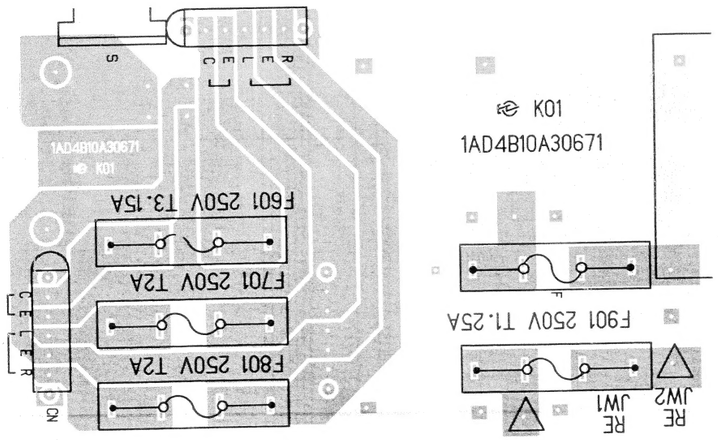
SUB - P.T. PCB

(SPAIN/EUROPE)



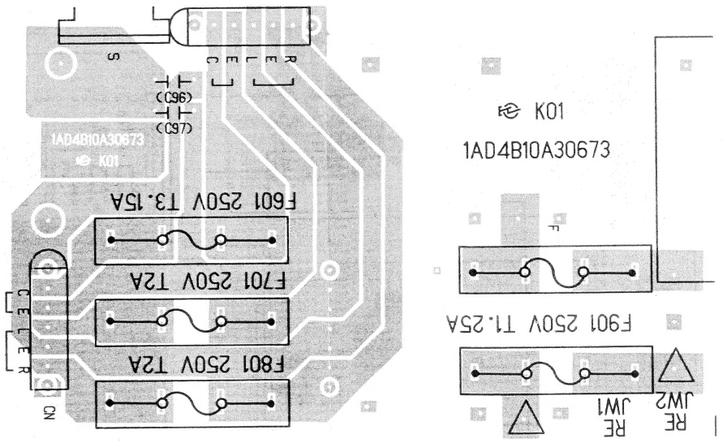
SUB - P.T. PCB

(ITALY/W.GERMANY)



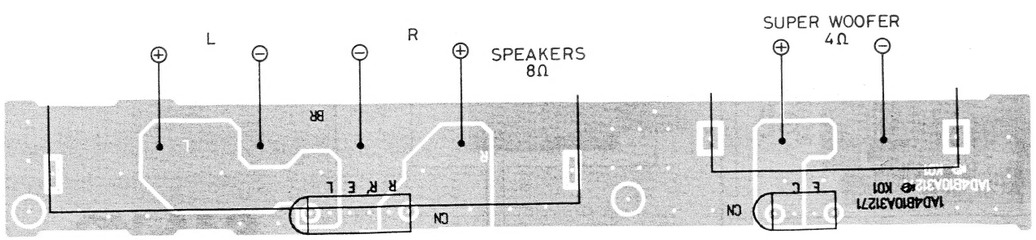
FUSE PCB

(SPAIN/EUROPE)



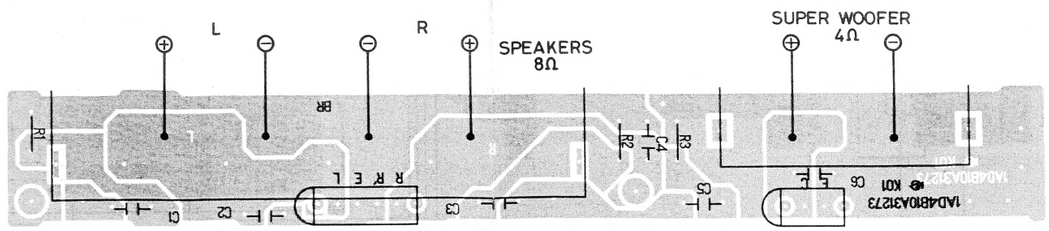
FUSE PCB

(ITALY/W.GERMANY)



SP TERMINAL PCB

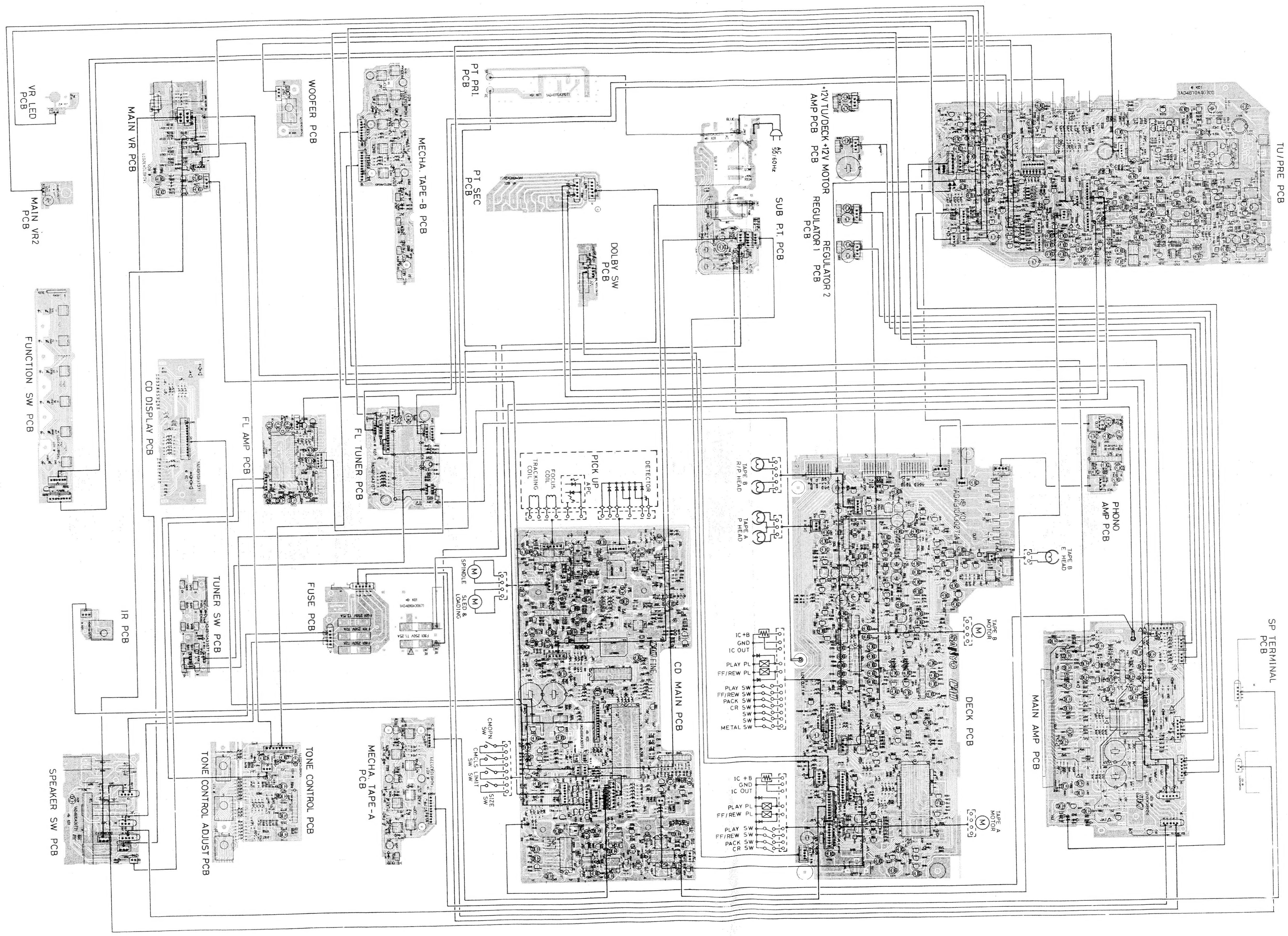
(SPAIN/EUROPE)



SP TERMINAL PCB

(ITALY/W.GERMANY)

39. WIRING CONNECTION



SANYO

SANYO Electric Co., Ltd.
Osaka, Japan

Aug./'89/3600 NS Printed in Japan